



CHEVRON PHOSPHATE PROJECT

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
STATE OF WYOMING
OFFICE OF INDUSTRIAL SITING ADMINISTRATION

**FINAL
ENVIRONMENTAL
IMPACT
STATEMENT**

JULY 1983



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IN REPLY
REFER TO:

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

P.O. Box 1828
2515 Warren Avenue
Cheyenne, Wyoming 82001

Dear Reader:

The final Environmental Impact Statement (EIS) on the Chevron Phosphate Project is furnished for your information and use. This volume is a supplement to the draft EIS which was published January 7, 1983, and contains a revised Summary of the content of the draft and a revised. Comparative Analysis. New material contained within these revised sections is highlighted through use of bold italicized print. This volume also contains the following new material: description and analysis of the recently proposed Nightingale Station Plant Process Water Pipeline Alternative, comments on the draft EIS received during the public comment period, and responses to the comments. The draft was not reprinted in its entirety, because no major revisions to the text nor maps were required.

The Bureau of Land Management (BLM) would like to take this opportunity to thank the individuals and organizations who provided suggestions and comments on the draft EIS. Their help has been invaluable in the preparation of this final EIS.

Since this is an abbreviated final, the entire document to be considered for filing purposes and in the decisionmaking process consists of this volume and the draft EIS. Please refer to the draft for more detailed analyses and descriptions of the proposed action and the alternatives.

Copies of the draft EIS and the final EIS are available upon request. Address requests to Mr. Richard E. Traylor, Project Leader, Bureau of Land Management, Division of EIS Services (D-490), 555 Zang Street, 1st Floor East, Denver, Colorado 80228. In addition, a limited number of copies are available at the Rock Springs and Vernal District Offices.

The final EIS is not the decision document. The BLM decisions on the requested rights-of-way will be based upon the analysis contained in the final EIS, public concerns and comments, and other multiple-use resource objectives or programs applicable to the Chevron Phosphate Project. Comments regarding the content of the final EIS may be sent to: Donald Sweep, District Manager, Rock Springs District Office, P.O. Box 1869, Highway 187 N., Rock Springs, Wyoming 82901. Written comments will be considered in the decision if the comments are received by close-of-business, August 19, 1983. A record of decision that outlines the decisions and the rationale will be prepared and made available through the Rock Springs District Office as soon as the decision is reached.

Sincerely,

Maxwell T. Lieurance
Maxwell T. Lieurance
State Director

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AND THE STATE OF WYOMING**

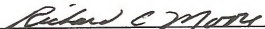
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**FINAL
ENVIRONMENTAL IMPACT STATEMENT
ON THE
CHEVRON PHOSPHATE PROJECT**

Prepared By

Bureau of Land Management
and
Office of Industrial Siting Administration

JULY 1983



Director, Office of Industrial Siting Administration



Director, Wyoming State Office

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COVER SHEET

Chevron Phosphate Project Environmental Impact Statement

() Draft

(X) Final

Joint Lead Agencies

U.S. Department of the Interior, Bureau of Land
Management
State of Wyoming, Industrial Siting Administration

Cooperating Agencies

U.S. Department of the Interior, Bureau of
Reclamation and Fish and Wildlife Service
U.S. Department of Agriculture, Forest Service
U.S. Department of the Army, Corps of Engineers

Counties That Could Be Directly Affected

Uintah and Daggett Counties, Utah
Sweetwater County, Wyoming

Abstract

This EIS assesses the environmental consequences of State and Federal approval of a phosphate project proposed by Chevron Chemical Company (Chevron). Major project components are a phosphate fertilizer plant complex to be located on private land, 4.5 miles southeast of Rock Springs, Wyoming; a phosphate slurry pipeline extending from Chevron's existing Vernal, Utah mine to the plant complex site; a plant process water pipeline; a slurry water supply (existing tailings pond at the mine site); a railroad spur; a county road relocation; microwave communication system; and an electrical power system (transmission lines and substations). A contract to supply water from the Fontenelle Reservoir has been signed by the State of Wyoming and Chevron Chemical Company. This contract is subject to approval by the Bureau of Reclamation. Alternatives assessed in detail include three water pipelines and associated power distribution lines,

and three phosphate slurry pipeline alternative locations. The proposed action would provide for the manufacture and transportation of liquid and pelletized phosphate fertilizer.

Based on the issues and concerns identified during the scoping and public hearing processes, the EIS focuses on the impacts to socioeconomic, water resources, fish and wildlife resources, soils and vegetation, and visual resources. Impacts on six key issue areas (Rye Grass Draw, Red Creek Canyon, Red Creek Basin Escarpment, Jesse Ewing Canyon, Goslin Mountain, and Willow Creek) have been identified.

EIS Contact

Comments on this EIS should be directed to:

Donald Sweep, District Manager
Bureau of Land Management
Rock Springs District Office
P.O. Box 1869
Rock Springs, Wyoming 82901

(307) 382-5350

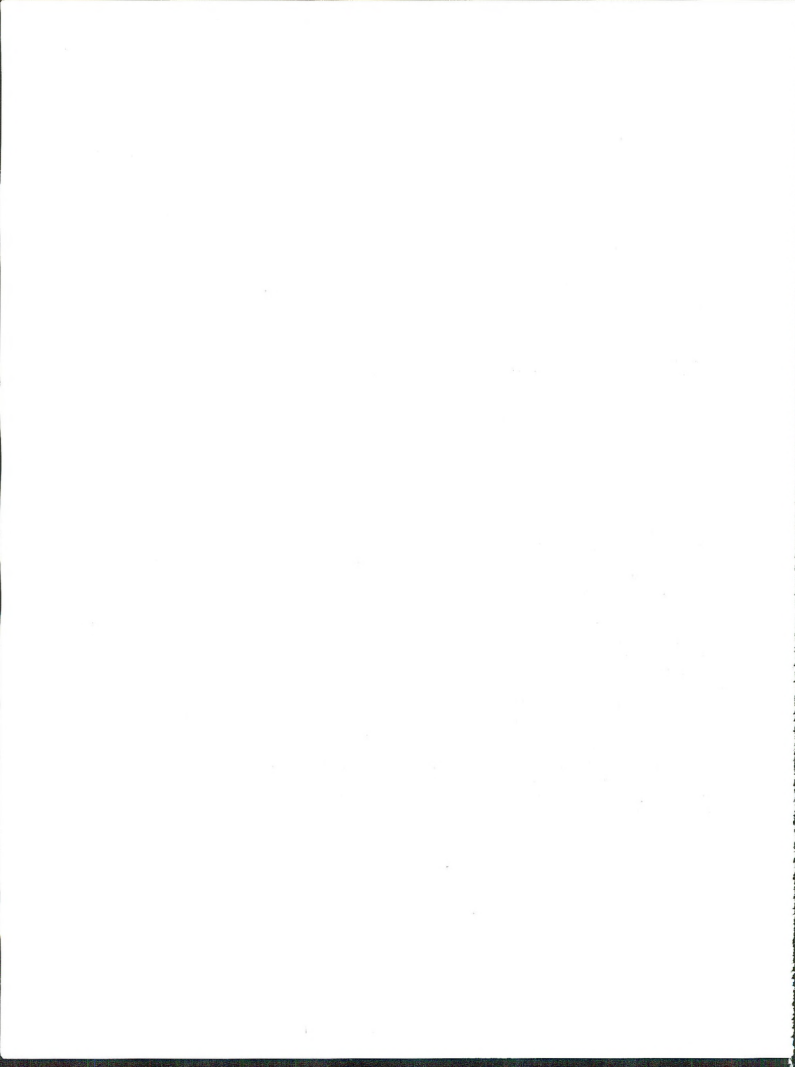
Date By Which Comments on the EIS Must Be Received

BLM decisions on use of public lands for these projects will not be made until at least 30 days after the EPA Final EIS Notice of Availability has appeared in the *Federal Register*. During that 30-day period, written comments on the content of this Final EIS and the proposed MFP amendments will be accepted at the address noted above. Comments received will be considered in the BLM decision-making process.

Date EIS Made Available to EPA and the Public

Draft: January 12, 1983

Final: July 22, 1983



PREFACE

The purpose of this final environmental impact statement (EIS) is to supplement the draft EIS which was published January 12, 1983. Reviewed together, the draft and final EISs incorporate the analyses of the affected environment and potential environmental consequences resulting from construction and operation of the Chevron Phosphate Project and alternatives. This final EIS should not be considered as a complete EIS, nor as a decision document. It contains a revised Summary (Section 1) and Comparative Analysis (Section 2). Information presented in these two sections, that is different from the material presented in the draft EIS, is identified through the use of ***bold italicized*** print.

In addition, this final EIS contains a variety of new material. Section 3 contains the analysis of the recently proposed Nightingale Station alternative. This section correlates to Chapters 1, 3, and 4 of the draft EIS. Because of the relative brevity of the text, it was more efficient to combine what would normally be three chapters into one section. Section 4 is the Errata Summary. This section indicates text changes to the draft EIS that were made subsequent to all comments received during the review period. Section 5 is entitled Consultation and Coordination and contains background information, consultation and coordination processes, and copies of comment letters received during the 60-day review period. All comment letters are reprinted verbatim, and responses to individual comments follow immediately after each letter. In addition, this EIS contains three appendices which identify new material related to the analyses contained within the

draft and final EISs: The Office of Industrial Siting Administration Conditions to Mitigate Environmental and Socioeconomic Impacts (Appendix 1) the Fish and Wildlife Service Biological Opinion (Appendix 2), and the land status and ownership for the Nightingale station alternative (Appendix 3).

The following federal action requests initiated the preparation of the draft and final EISs: approval of right-of-way grants and permits across public land for a phosphate slurry pipeline, transmission lines, pump stations, microwave stations, power substations and a water line; approval of a water sale contract between the State of Wyoming and Chevron. The results of the analyses, as documented in this EIS and the draft, will be used for making decisions on whether to approve, modify, or disapprove the above requested actions.

The analyses were based on a proposed schedule of development. Chevron recently announced a 1- to 2-year delay in its project plans. The impacts identified in the EIS would still occur with implementation of the project; however, the time period would be different. In addition, the cumulative impacts could be different, depending on the revised scheduling of the project. This difference cannot be predicted at the present time, due to uncertainties in Chevron's schedule as well as schedules for other projects in the affected area. Before any requested federal actions can be granted, the cumulative impacts will need to be reevaluated to determine if they fall within the parameters discussed in this, and the draft, EIS.

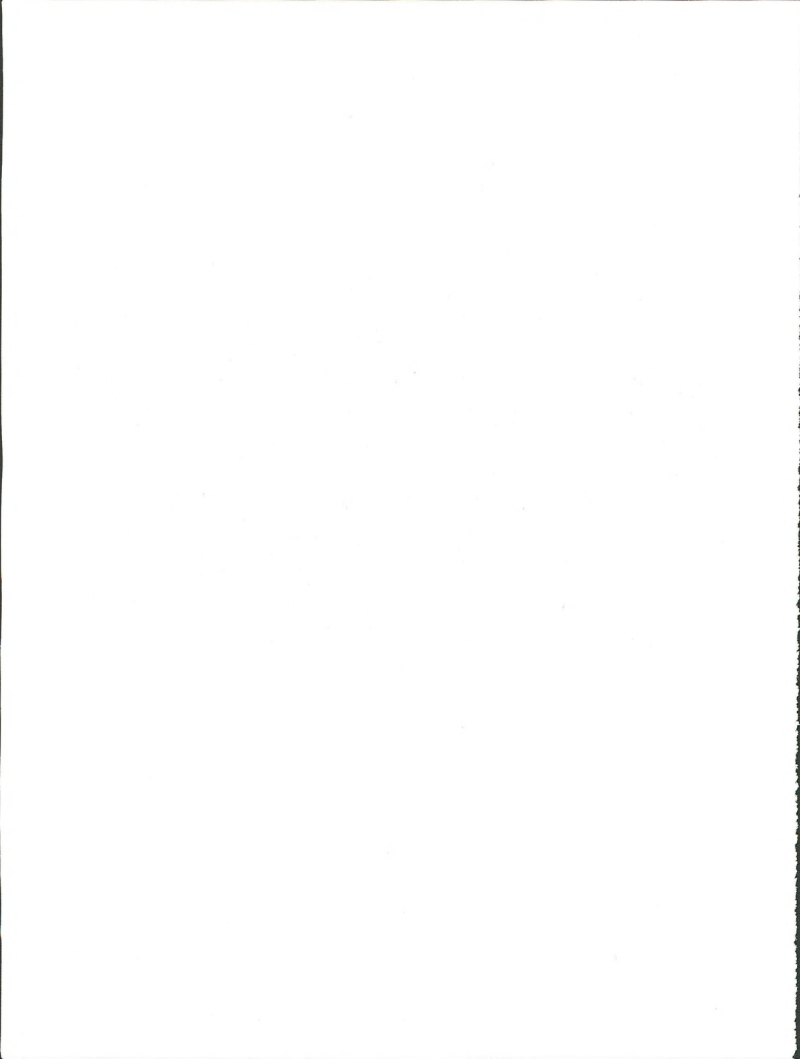


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SECTION 1

SUMMARY



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SECTION 1

SUMMARY

1.1 PROJECT DESCRIPTION

Chevron Chemical Company (Chevron) has applied to the Bureau of Land Management (BLM), Wyoming and Utah State Offices, for a right-of-way permit, and to the State of Wyoming, Office of Industrial Siting Administration (ISA), for an Industrial Siting Council permit to construct and operate a phosphate fertilizer plant and associated ancillary facilities. *On January 13, Chevron was given tentative approval by the Industrial Siting Council to construct and operate its fertilizer plant near Rock Springs, Wyoming. The Industrial siting permit, WISC-82-2, was granted by the Industrial Siting Council on January 24, 1983, and included permit conditions to mitigate environmental and socioeconomic impacts. (Refer to Appendix 1 for the Office of Industrial Siting Administration Permit Conditions to Mitigate Environmental and Socioeconomic Impacts.)* The fertilizer plant would initially produce an estimated 1,200 tons per day of liquid and pelletized phosphate fertilizer.

The complex with associated ancillary facilities would be primarily located southeast of Rock Springs, Wyoming, and northeast of Vernal, Utah. The proposed fertilizer complex would use sulfur recovered from Chevron USA's natural gas plant located at Carter Creek, Wyoming; phosphate from Chevron Resource Company's mine at Vernal, Utah; and water from the Fontenelle Reservoir in Wyoming. Various chemicals and materials would be shipped to the plant site over a proposed railroad spur.

Phosphate rock for the proposed fertilizer plant would be supplied by an existing mine and beneficiation plant owned by Chevron Resources Company north of Vernal, Utah. The phosphate rock would be slurried to the plant through a proposed 98.2-mile long, 11-inch diameter buried pipeline that would originate from an existing phosphate mine in Utah. It would run diagonally from the mine through Red Creek Canyon to the Wyoming border and then generally parallel the right-of-way of the Mid-America Pipeline Company (MAPCO) liquid hydrocarbons transportation pipeline in Wyoming. Molten sulfur from the Chevron U.S.A., Inc., Carter Creek gas plant would be shipped to the fertilizer plant by rail from an existing sulfur load-out facility near Kemmerer, Wyoming. Transportation of the sulfur would require construction of a 8.7-mile long rail spur from the main Union Pacific line at Rock Springs to the plant site. (Refer to Map 1-2 of the

draft EIS for location of the plant, related ancillary facilities, and proposed alternatives.)

Chevron has *entered into a contract to purchase* 22,500 acre-feet of water for the project from the State of Wyoming. This water would be supplied from the Fontenelle Reservoir. Water would be released from the reservoir into the Green River and withdrawn downstream from the Green River near Davis Bottom.

Pacific Power and Light Company (PP&L) would provide electricity for the proposed project. Electrical power for plant construction would be supplied by a new 34.5 kV power distribution line, extending from an existing 230 kV line located 7 miles west of the plant.

In addition to the proposed action, several alternatives were identified. The following alternatives are considered in this analysis: (1) Middle Firehole Plant Process Water Pipeline Alternative; (2) *Nightingale Station Plant Process Water Pipeline Alternative*; (3) Jensen Slurry Water Supply Alternative; (4) MAPCO, Northwest, and Willow Creek phosphate slurry pipeline alternatives; and (5) No-Action Alternative.

1.2 AREAS OF CONTROVERSY

In the scoping process conducted during the early stages of the environmental impact statement (EIS) development, several areas of controversy related to the proposed action were identified. Major concerns included air quality, socioeconomic concerns, water quality, visual resources, possible impacts to wildlife and grazing, and grade problems in Jesse Ewing and Red Creek canyons. A summary of the issues identified through the scoping process is identified in Appendix 1, Consultation and Coordination, *of the draft EIS*. In addition, the following key issue areas were identified: (1) *Rye Grass Draw*, (2) *Red Creek Canyon*, (3) *Red Creek Basin Escarpment*, (4) *Jesse Ewing Canyon*, (5) *Goslin Mountain*, and (6) *Willow Creek*.

1.3 MAJOR IMPACT CONCLUSIONS

Development of the Chevron Phosphate Project would cause impacts either by displacing resources (such as removal of vegetation), using resources (such as water consumption), or creating other changed conditions (such as visual scars). The

SUMMARY — MAJOR IMPACT CONCLUSIONS

analysis of this project focuses on these kinds of potential impacts. The major anticipated environmental impacts caused from implementation of the proposed action or alternatives are detailed in Chapter 4 of the draft EIS with a revised comparative analysis in Section 2 of this EIS.

The analysis indicates that, in general, this project by itself would have impacts of the nature and magnitude that could be managed without undue degradation to other natural resources. Mitigation measures are identified to minimize impacts to resources and/or to provide restoration. General standard measures which will be required by the federal agencies and measures for which there has been a commitment from Chevron are detailed in Appendix 2 of the draft EIS. Committed measures which will additionally be required and will form a portion of the stipulation package are identified in Chapter 4, Section 4.8 of the draft EIS. Even so, this project would cause impacts, and these are summarized as follows:

Water Resources: Implementation of the proposed action would result in a 0.49 percent reduction in flow in the Green River and *approximately a 1 milligram per liter (mg/l) increase in salinity at Imperial Dam.* However, significantly different changes in flow and salinity could occur based on *existing and future* cumulative water needs of other industrial development, agriculture, and municipal uses. Depletions of water in the Green River could increase to 575,000 acre-feet per year by the year 2000 causing a 20 mg/l increase in salinity at the mouth of the Green River and approximately 11 mg/l increase at Imperial Dam. *This predicted cumulative increase in salinity could be affected by the Bureau of Reclamation's Colorado River Salinity Control Program.*

Withdrawal of water from Davis Bottom would not have noticeable effect on flow nor affect the water resources of the area.

Construction of the Red Creek Canyon phosphate slurry pipeline would affect Red Creek Canyon (MP 42 through 46). Without careful construction techniques and enforcement of reclamation plans, those points where the pipeline would enter and leave the canyon could also become sediment contributors. For a period lasting approximately 2 months, sediment from Red Creek Canyon could reach the Green River. The degree of impact would depend upon runoff events occurring during and immediately after construction.

With the exception of the phosphate slurry pipeline

alternatives which would avoid Red Creek Canyon, the alternatives would have impacts to water resources similar to those identified for the proposed action.

Socioeconomics: No significant impacts would be experienced in Sweetwater County in population, employment, personal income, educational systems, fiscal conditions, and social conditions. Implementation of the proposed action would cause statistically significant impacts in some areas of facilities/services and recreation, but the actual number of additional staff required would be small. There would be significant impacts on housing in Rock Springs during the construction years, but local developers would be able to meet the demand. Impacts on Uintah and Daggett counties, Utah, and the town of Vernal would be minimal. Implementation of the slurry pipeline could result in loss of jobs for approximately 40 contract truck drivers, 10 maintenance workers, and 10 workers at the Phoston terminal. However, the proposal would result in an overall increase of 30 jobs in the Vernal area. The ultimate loss cannot be quantified since the drivers might find other employment. Impacts from implementation of the alternatives would be similar to those identified for the proposed action.

Transportation Networks: Construction of the plant complex could significantly affect traffic along Wyoming State Highway 430, from mid-1983 through mid-1985. However, *if a problem develops*, Chevron has agreed to use staggered shifts and busing as required to alleviate some of the traffic congestion. Similar traffic problems could exist along U.S. Highway 191, during construction of the Red Creek Canyon phosphate slurry pipeline.

Implementation of the slurry pipeline could reduce traffic from the mine site to Phoston, Utah, resulting in a positive impact on traffic flow in this area. However, because the Red Creek Canyon phosphate slurry pipeline could be in conflict with the existing MAPCO pipeline through Rye Grass Draw, *improper* construction of this component *would* cause damage or shutdown of the MAPCO pipeline. This impact *could* also occur with implementation of the MAPCO or Willow Creek alternative and *would* be considered a significant impact.

Construction of the MAPCO or Willow Creek alternatives could have a positive impact on transportation networks by enhancing Daggett County's (Utah) capability to improve an existing county road into Brown's Park, depending upon final alignment. However, during the construction

SUMMARY — MAJOR IMPACT CONCLUSIONS

period, approximately 1 month, local and recreational traffic would be disturbed. Construction of the alternatives through Jesse Ewing Canyon would result in numerous and lengthy road closures.

Construction of the Northwest alternative could significantly affect the existing Northwest pipeline for reasons similar to those identified for the MAPCO pipeline alignment. Also, some increase in traffic flow could occur during construction near Little Hole Campground.

If care is not taken, construction of the Nightingale Station alternative could affect three existing pipelines: Mountain Fuel, Pioneer, and Colorado Interstate Gas.

Air Quality: The amounts of fluoride, total suspended particulates, sulfur dioxide, nitrogen dioxide, and acid mist pollutants that would be emitted from the plant site meet the standards identified in the Wyoming prevention of significant deterioration regulations. Because emissions would cover a broad geographic area, no significant impacts are anticipated from implementation of the proposed action. There would be no significant impact to visibility.

Construction of other proposed action or alternative components would not significantly affect either Wyoming or Utah air quality standards.

Wildlife: The proposed action would disturb 1,392.5 acres of mule deer, 408.5 acres of elk, and 1,237.25 acres of pronghorn habitat. In addition, about 587.25 acres of sage grouse and 341 acres of whitetail prairie dog habitat would also be disturbed. ***(The finding of black-footed ferrets has frequently been associated with the presence of whitetail prairie dogs.)*** Habitat losses are not predicted to cause significant impacts, because of the total amount of habitat available.

Some population losses could result from harassment and lowered production; however, none of these losses would be significant. There is also concern that birds drinking wastewater from the gypsum impoundment could suffer debilitating or lethal effects. There is a potential for adverse impacts to two federally listed threatened and endangered fish species (Colorado squawfish and humpback chub). ***The biological opinion will describe the extent to which this potential may exist.**** This could result in lowered production potential. In addition, implementation of the Jensen alternative could

significantly affect the razorback sucker and Colorado squawfish.

****NOTE: Because of the need for further negotiation with Chevron and the State of Wyoming regarding potential impacts to the Colorado River squawfish, the Fish and Wildlife Service has formally requested an extension in order to complete its biological opinion (Appendix 2). Therefore, the opinion could not be included as part of this EIS, as originally planned; it will, however, be included as part of the final decision-making process.***

Impacts from implementation of the alternatives would be similar to those identified for the proposed action, except for specific magnitudes as identified in various tables contained within Section 2 of this EIS.

Visual Resources: Implementation of the proposed action and any of the alternatives would significantly and adversely affect visual resources by exceeding the allowable levels of contrast for each visual resource management (VRM) class or visual quality objective (VQO) established for specific portions of the project areas. Specific acreages that would be disturbed for each VRM classification and VQO are identified in various tables throughout ***the draft EIS.***

Land Use Plans: The only component of the proposed action that would conflict with any existing land use plans would be the Red Creek Canyon phosphate slurry pipeline. Ten miles of the slurry pipeline would conflict with the BLM Vernal District Management Framework Plan, which states that all new pipeline construction should occur within existing right-of-way corridors. In addition, 8.8 miles of this pipeline would be in conflict with the Red Creek Watershed Management Plan.

Implementation of the Northwest or Willow Creek phosphate slurry pipeline alternatives would also conflict with the BLM Vernal District Management Framework Plan. The Northwest and Willow Creek alternatives would have 4 miles each of pipeline in conflict with the plan. The Northwest alternative would have 3 miles in conflict with the Flaming Gorge National Recreation Area (NRA) Management Plan, and would also be incompatible with the Ashley National Forest Travel Plan. Implementation of other alternatives or components would not affect any known land use plans.

Conflicts of the proposed action or the phosphate slurry pipeline alternatives with the various land use plans would require amendments, in order for construction to occur. If amendments were made, depending on the nature of the amendment, a

SUMMARY — MAJOR IMPACT CONCLUSIONS

supplemental environmental assessment may be required.

Recreation Resources: Construction activity would create temporary impacts to the recreation resources and to user experiences including sightseeing and float boating activities. Noise and dust generated from construction activity *would* affect sightseers who visit the John Jarvie Ranch historical site and recreation experiences within the **proposed Green River Corridor** Area of Critical Environmental Concern (ACEC).

The booster station and microwave tower would affect the quality of vista views from the auto day use turn-out overlooking the Red Creek Watershed ACEC. These structures would also impede efforts of those seeking primitive recreation opportunities. Hunting *and* fishing pressures could increase from a predicted population growth in the Rock Springs area. ***Game law violations and subsequent impacts to game and fish law enforcement capabilities could increase.*** Recreation use would also increase within the Flaming Gorge NRA, during the project's 1- to 2-year peak construction period. Recreational use of the Davis Bottom area along the Green River could increase with the use of the all-weather access road.

The Jensen alternative would cause some temporary, short-term impacts to recreation through increased *off-road vehicle (ORV) use along the alternative right-of-way*, and disruption of *sightseeing experiences along the "Drive Through the Ages" due to traffic delays and visual intrusions during construction activities.*

The Northwest alternative would cross the Flaming Gorge NRA causing significant, adverse impacts and considerable public controversy, in addition to being in conflict with the Flaming Gorge NRA Management Plan. Affects from increased ORV use and construction activities would be similar to those identified for the proposed action.

Wilderness: Impacts to the wilderness resource base would be short-term (4 to 6 weeks). The sights, sounds, and possible dust migration from pipeline construction activity along the northwest boundary of the Red Creek Badlands *wilderness study area* (WSA) could temporarily diminish the quality of primitive and unconfined forms of recreation experiences within the WSA. ***Additionally, the Rock Springs District Wilderness draft EIS (BLM 1983) has recommended that the Red Creek Badlands WSA be managed as non-wilderness for other multiple-use objectives.*** There would be no impacts to wilderness from implementation of any of the

alternative routes. ***However, the Northwest alternative would cross a portion of the Goslin Mountain Roadless Area, which must be reevaluated for potential wilderness as part of the Forest Service planning process.***

Cultural Resources: The construction activities of the proposed action or alternatives would cause land disturbance and modification to cultural resources that occur within the area. The impacts could include destruction or alteration of the resources, displacement of artifacts, alteration of the surrounding environment, and introduction of visual, audible, and atmospheric elements out of character with the present environment. These impacts would cause a loss of scientific and cultural information and a loss of a portion of the resource base for future research. The loss of any information could have a significant impact on efforts to reconstruct the prehistory and history of the region.

Soils and Vegetation: The proposed action would disturb 1,516 acres of land of which 740 acres would be occupied. Of the land disturbed, ***1,033 acres would occur in sensitive soil areas. The following acreages of vegetation would be disturbed:*** 1,179.25 acres of sagebrush-grass, 184 acres of piñon-juniper, 116 acres of greasewood, 12.75 acres of aspen-mountain shrub, and 24 acres of riparian vegetation. ***Refer to the draft EIS and Section 2 of this EIS for comparative details on the alternatives.***

Implementation of the proposed action or the phosphate slurry pipeline alternatives would affect one or more key issue areas. These areas are identified and described in detail in various sections within the **draft EIS**.

These six areas include:

—**Rye Grass Draw**—this area contains slopes exceeding 15 percent that would require contour alignment adjustments. This issue area would be affected by implementation of the Red Creek Canyon, MAPCO, and Willow Creek pipelines.

—**Red Creek Canyon**—this area contains a narrow floodplain and a stream course with hard bedrock floor. This area would be affected only by the Red Creek Canyon pipeline.

—**Red Creek Basin Escarpment**—this area contains very steep sideslopes (***35 to 45 percent***) and unstable soil conditions. Implementation of the proposed action and any of the phosphate slurry pipeline alternatives would affect this issue area.

SUMMARY — MAJOR IMPACT CONCLUSIONS

—*Jesse Ewing Canyon*—this area contains a narrow floodplain with hard bedrock floor and slopes greater than 15 percent; the canyon also contains a county road and the MAPCO pipeline. The canyon would be affected by the MAPCO and Willow Creek alternatives.

—*Willow Creek*—this area contains steep and very steep rocky sideslopes and hard bedrock. Only the Willow Creek alternative would affect this area.

—*Goslin Mountain*—this area contains steep rocky sideslopes underlain by hard bedrock. The Northwest alternative would affect this area.

These key areas would require more intensive construction, stabilization, and restoration measures to minimize soil erosion and other related factors. In addition, more intensive supervision of the reclamation measures would be required.

Agriculture: All components of the proposed action or alternatives would affect areas where livestock grazing occurs. Impacts to grazing would be insignificant to livestock operations from implementation of the proposed action or any of the alternatives. However, there could be significant secondary impacts if the pipeline were left open for periods longer than 1 week, if a path were cleared for livestock trailing, or if livestock abandoned traditional grazing areas. Except for the Jensen

alternative, no cropland would be affected by any of the plant site facilities, pump stations, or facility rights-of-way of the proposed action or alternatives.

Paleontology: Impacts to paleontological resources from construction and operation of the proposed action or alternatives would consist of unquantifiable losses of plant, invertebrate, and vertebrate fossils. A number of fossils could be destroyed during construction. Increased collection and removal of known fossils in the region would likely result from increased numbers of people within the area. Appendix 2 of the *draft* EIS identifies several measures that would protect some of these areas encountered by the proposed action or alternatives.

1.4 AGENCY PREFERRED ALTERNATIVE

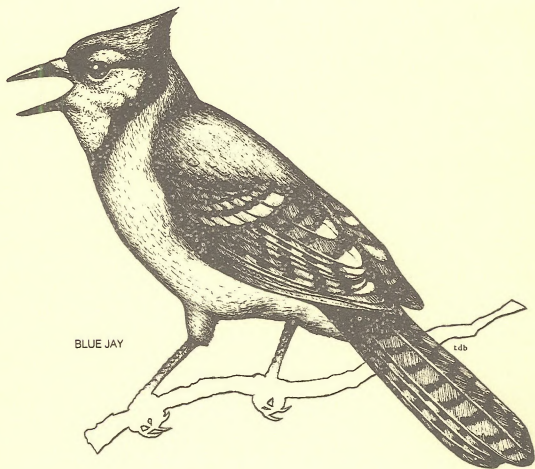
The agency preferred alternative is as follows:

Fertilizer Plant — Proposal;
Phosphate Slurry Pipeline — MAPCO alternative;
Slurry Water Supply — Proposal;
Plant Process Water Supply — *Nightingale Station alternative*
Railroad Spur — Proposal;
Microwave System — Proposal;
Power Transmission Lines and Substations — as described for the agency preferred alternatives and as proposed for the plant complex.



SECTION 2

COMPARATIVE ANALYSIS





SECTION 2

ENERGY EFFICIENCY AND COMPARATIVE ANALYSIS

The energy efficiencies and environmental impacts of the proposed action and alternatives are compared in this section. The component alternatives compared in this section are the Middle Firehole *plant process* water pipeline, the *Nightingale Station plant process water pipeline*, the Jensen slurry water supply pipeline, and the MAPCO, Northwest, and Willow Creek phosphate slurry pipelines.

2.1 ENERGY EFFICIENCY

The plant would require commercial power for start-up, but would then switch to on-site generated power from the sulfuric acid plant.

Transportation of the slurry requires energy. For the proposed action, there would be two main energy

consumers: two 1,400-horsepower pumps located at the mine site and two 1,100-horsepower pumps located at the booster pump station. Additionally, these pumps would require 12,730,452 British thermal units (Btu's) per hour. Table 2-1 compares the Red Creek Canyon phosphate slurry pipeline route with the alternative routes, based on Btu's consumed during each hour of pumping. No calculations were made for frictional or head differences; the comparison is simply based upon length.

Similarly, energy would be required to pump water from the various water sources (Davis Bottom, Middle Firehole, Nightingale Station, and Jensen). The Btu demand for these water sources is shown in Table 2-2.

TABLE 2-1

ENERGY EFFICIENCY COMPARISON OF THE RED CREEK CANYON PHOSPHATE SLURRY PIPELINE WITH THE ALTERNATIVES

Pipeline	Length in Miles	Btu per Mile	Total Btu per Hour
Red Creek Canyon	98.2	129,638	12,730,452
MAPCO	96.3	129,638	12,484,139
Northwest	88.1	129,638	11,421,108
Willow Creek	96.8	129,638	12,548,958

* British thermal units (Btu's) determined as follows: horsepower x 746 kilowatts/horsepower x 3,413 Btu/kilowatt hour.

TABLE 2-2

ENERGY EFFICIENCY COMPARISON OF THE DAVIS BOTTOM PROCESS WATER PIPELINE WITH THE ALTERNATIVES

Pipeline	Length in Miles	Btu per Mile	Total Btu per Hour
Davis Bottom	16.4	194,062	3,182,617
Middle Firehole	20.4	187,213	3,819,145
<i>Nightingale Station</i>	<i>17.4</i>	<i>194,062</i>	<i>3,376,679</i>
Jensen	19	190,638	3,622,122
Tailings Pond**	0	0	0

* British thermal units (Btu's) determined as follows: horsepower x 746 kilowatts/horsepower x 3,413 Btu/kilowatt hour

** Existing pond; no new impacts are anticipated from implementation of the proposed action.

COMPARATIVE ANALYSIS — PLANT PROCESS WATER PIPELINES

Depending on which system components are used, the Btu's required to operate the water supply system and deliver the slurry could range from a low of 14,603,725 per hour (the Northwest alternative and the Davis Bottom water supply), to a high of 20,171,719 (the Red Creek Canyon pipeline and the Jensen and Middle Firehole alternatives).

2.2 COMPARATIVE ANALYSIS

2.2.1 Middle Firehole Plant Process Water Pipeline Alternative

The Middle Firehole *plant* process water pipeline, with related facilities, would be 4 miles longer than the Davis Bottom route and, therefore, would result in slightly more acreage disturbance. These impacts are identified by component and resource as indicated in Table 2-3.

In addition to these small increases, there would be a significant increase in visual impact due to the 150-foot high microwave tower, compared with the 50 foot high tower proposed at Davis Bottom.

Impacts for the following resources would be the same for this alternative as those detailed in the proposed action section of *the draft EIS* for the Davis Bottom plant process water pipeline: water resources, socioeconomics, transportation networks, air quality, land use plans, recreation,

cultural resources, and health and safety. Impacts that would be different are identified in the following resource discussions.

Wildlife: All wildlife habitat losses would be greater from implementation of this alternative than those identified for the proposed action, except that long-term, yearlong pronghorn habitat losses would be less than those indicated for the proposed action.

Visual Resources: Acres that would be affected by implementation of this alternative for Visual Resource Management (VRM) Classes II, III, and IV and Visual Quality Objective (VQO), Class R, would all be greater than those identified for the proposed action. In addition, the 150-foot high microwave tower at Middle Firehole would have a greater viewing impact than the 50-foot high tower proposed at Davis Bottom.

Soils and Vegetation: Acres disturbed, removed, and reclaimed, and sensitive acres that would be disturbed from implementation of this alternative, would all be greater than those identified for the proposed action.

Agriculture: Grazing losses from implementation of the Middle Firehole alternative would be 1 animal unit month (AUM) more per year for 2 to 5 years than the losses indicated for the proposed action route.

TABLE 2-3

PROCESS WATER SUPPLY PIPELINE COMPARATIVE ANALYSIS

Element	Proposed Action (Davis Bottom)	Middle Firehole Alternative	Nightingale Station Alternative
TOTAL LENGTH OF PROCESS WATER PIPELINE COMPONENTS — Miles			
Pipeline	16.4	20.4 (+4.0)	17.4 (+1.0)
Power Transmission Line	10.0	14.0 (+4.0)	0.0 (-10.0)
Access Road	5.0	8.0 (+3.0)	0.0 (-5.0)
ENERGY USED — Btu's/Hour	3,182,617	3,819,145 (+636,528)	3,376,679 (+194,062)
TRANSPORTATION NETWORKS			
<i>Possible interference to: Pipelines</i>	<i>None</i>	<i>None</i>	<i>+4.4 miles; Mountain Fuel, Pioneer, Colorado Inter- state Gas</i>
<i>Railroad</i>	<i>None</i>	<i>None</i>	<i>+0.7 miles, Union Pacific</i>
WILDLIFE			
Deer Habitat Loss — Acres¹			
Normal Winter Range			
Short-Term ²	53	109 (+56)	0 (-53)
Long-Term ³	11	13 (+2)	0 (-11)
Yearlong Range ¹			
Short-Term	81	49 (-32)	37 (-44)
Long-Term	5	12 (+7)	1 (-4)
Elk Habitat Loss — Acres			
Normal Winter Range			
Short-Term	26	47 (+21)	0 (-26)
Long-Term	15	18 (+3)	0 (-15)
Pronghorn Habitat Loss — Acres			
Normal Winter Range			
Short-Term	86	122 (+36)	88 (+2)
Long-Term	19	24 (+5)	1 (-18)
Yearlong Range			
Short-Term	14	36 (+22)	0 (-14)
Long-Term	14	1 (-13)	0 (-14)

TABLE 2-3 (Continued)
PROCESS WATER SUPPLY PIPELINE COMPARATIVE ANALYSIS

Element	Proposed Action (Davis Bottom)	Middle Firehole Alternative	Nightingale Station Alternative
Sagegrouse Habitat			
Loss—Acres			
General Distribution Range			
Short-Term	9	34 (+25)	37 (+28)
Long-Term	9	17 (+8)	1 (-8)
Whitetail Prairie Dog Habitat			
Loss—Acres			
General Distribution Range			
Short-Term	18	34 (+16)	30 (+12)
Long-Term	9	17 (+8)	0 (-9)
VISUAL RESOURCES*			
Acres Affected			
VRM Class II	0	2 (+2)	0 (0)
VRM Class III	7	25 (+18)	0 (-7)
VRM Class IV	0	10 (+10)	37 (+37)
VQO R	2	7 (+5)	0 (-2)
Height of Microwave Tower	50 feet	150 feet (+100 feet)	<i>None Required</i>
SOILS AND VEGETATION			
Acres Disturbed/Duration	140/1 year	183/1 year (+43/1 year)	106/1 year (-34/1 year)
Acres Removed/Duration	16/30 years	25/30 years (+9/30 years)	1/30 years (-15/30 years)
Acres Reclaimed	124	158 (+34)	105 (-19)
Acres of "Sensitive Areas" **	100	124 (+24)	14 (-86)
AGRICULTURE			
Grazing Loss AUM/Duration	5/2 to 5 years	6/2 to 5 years (+1/2 to 5 years)	4/2 to 5 years (-1/2 to 5 years)

Note: Btu = British thermal units; AUM = animal unit month.

Figures indicated inside parentheses are the difference between the proposed action and the alternative.

- indicates less than the proposed action; + indicates more than the proposed action.

* Refer to Appendix 6 of the draft EIS, for definition of terms.

** Refer to Chapter 4, Section 4.2.11, of the draft EIS, for definition and description of sensitive areas.

¹ Normal winter range are areas used by big game animals, 7 years out of 10, during the December through March period — a yearlong range is occupied by big game animals throughout the year, but could also include normal winter range for a migratory population.

² Short-term: The time required for revegetation, usually 3 to 5 years.

³ Long-term: Loss of productivity for the life of the project (habitat covered by buildings, etc.)

COMPARATIVE ANALYSIS — PLANT PROCESS WATER PIPELINES

2.2.2 Nightingale Station Plant Process Water Pipeline Alternative

This alternative process water pipeline would be 1 mile longer than the Davis Bottom proposed action route. However, it would not require a new road, nor any new disturbance for construction of a power distribution line; therefore, the acreage disturbed would be less than the proposed action. These impacts are identified by component and resource, and compared in Table 2-3. The Nightingale Station alternative would not cross the Fleming Gorge National Recreation Area (NRA).

Impacts for the following resources would be the same for this alternative as those detailed in the proposed action section of the draft EIS for the Davis Bottom plant process water pipeline: water resources, socioeconomic, land use plans, cultural resources, and health and safety.

Impacts that would be different are identified in the following resource discussions.

Transportation Networks: If care is not taken, construction of this alternative could affect three existing pipelines from milepost (MP) 11.9 to 16.3 and the existing Union Pacific railroad from MP 16.7 to MP 17.4. (Refer to Table 2-3, for comparison and Section 3 of this EIS, for more details on the Nightingale Station alternative.)

Air Quality: Since the number of acres disturbed

would be less than those identified for the proposed action, the impacts from construction of this alternative would also be less, although not significantly different.

Wildlife: All wildlife habitat losses would be less from implementation of this alternative than those identified for the proposed action, except for sage grouse and whitetail prairie dog where short-term disturbance would be more (refer to Table 2-3).

Visual Resources: Acres that would be affected by implementation of this alternative for VRM Classes II and III, and VQO Class R (of which no areas would be affected), would be less than those identified for the proposed action. VRM Class IV acres would increase. Since this alternative does not require a microwave tower, any impacts normally related to such a structure would be eliminated.

Recreation Resources: Since the water intake structure on the Green River will be located adjacent to the railroad switching yard, there would be none of the impacts that are associated with the Davis Bottom location.

Soils and Vegetation: Acres disturbed and removed, and sensitive acres that would be disturbed from implementation of this alternative, would all be less than those identified for the proposed action.

Agriculture: Grazing losses from implementation of this alternative would be 1 AUM less per year for 2 to 5 years than losses indicated for the proposed action route.

TABLE 2-4

SLURRY WATER SUPPLY PIPELINE COMPARATIVE ANALYSIS

Element	Proposed Action (Tailings Pond)	Jensen Alternative
TOTAL LENGTH OF SUPPLY WATER		
PIPELINE — Miles		
Pipeline	0	19.0 (+19.0)
Power Transmission Line	0	0.6 (+0.6)
ENERGY USE — Btu's/Hour		
	0	3,622,122 (+3,622,122)
WATER RESOURCES		
Change in Green River cfs	0	4 (+4 from Flaming Gorge Dam to Jensen)
WILDLIFE		
Conflicts with Squawfish Spawning Areas	0	Intake structure
Deer Habitat Loss — Acres		
Short-Term	0	36 (+36)
Ring-Necked Pheasant Habitat		
Loss — Acres		
Short-Term	0	43
Long-Term	0	1 (+1)
VISUAL RESOURCES*		
Acres Significantly Affected		
VRM Class II	0	3
VRM Class IV	0	1
SOILS AND VEGETATION		
Acres Disturbed/Duration	0	118/1 year (+118/1 year)
Acres Removed/Duration	0	1/30 years (+1/30 years)
Acres Reclaimed	0	117 (+117)
Acres of "Sensitive Areas" **	0	78 (+78)
AGRICULTURE		
Grazing Loss AUM/Duration	0	4/2 to 10 years (+4/2 to 10 years)
Farming Loss Acres/Duration	0	6/1 year (+6/1 year)
HEALTH AND SAFETY		
Related to Miles of Construction	0	+20 (+20)

Note: Btu = British thermal units; AUM = animal unit month; cfs = cubic feet per second.

Figures Indicated inside parentheses are the difference between the proposed action and the alternative.

- Indicates less than the proposed action; + indicates more than the proposed action.

* Refer to Appendix 6 of the draft EIS, for definitions of terms.

** Refer to Chapter 4, Section 4.2.11, of the draft EIS, for definition and description of sensitive areas.

COMPARATIVE ANALYSIS — PHOSPHATE SLURRY PIPELINES

2.2.3 Jensen Slurry Water Supply Alternative

Since the proposed action would use an existing tailings pond as its source of water supply, no new impacts are anticipated. However, implementation of the Jensen alternative would involve the creation of all new and additional impacts as compared with the proposed action. These impacts are identified on Table 2-4.

2.2.4 Phosphate Slurry Pipeline Alternatives

MAPCO

This route would be 1.9 miles shorter than the Red Creek Canyon (proposed action) route which *equates to a slight reduction* in most of the impacts that would be incurred from implementation of the proposed action. (These impacts are compared in Table 2-5.) This route would pass through three key issue areas: Rye Grass Draw, Jesse Ewing Canyon, and Red Creek Basin Escarpment; the proposed action would pass through Rye Grass Draw, Red Creek Canyon, and Red Creek Basin Escarpment.

The only major difference between the MAPCO and proposed action routes is that the alternative would follow the existing MAPCO alignment through Jesse Ewing Canyon. The proposed action would follow Red Creek Canyon out of Brown's Park into Clay Basin, thus adding some unquantifiable additional sediment to Red Creek and the Green River for a 1-year period. The proposed action alignment would be in conflict with the BLM Management Framework Plan, whereas the alternative would not. However, the alternative route would conflict with the existing road and MAPCO pipeline alignments.

Impacts for the following resources would be the same for this alternative as those detailed in the proposed action section for the Red Creek Canyon phosphate slurry pipeline: socioeconomic, air quality, recreation, cultural resources, and health and safety. Resources that have different impacts because of the alternative alignment through Jesse Ewing Canyon are identified in the following resource discussions.

Water Resources: The alternative would exit Brown's Park through Jesse Ewing Canyon, instead of Red Creek Canyon (proposed action). Therefore, the impacts to water quality in the Brown's Park area would be somewhat less than the proposed action since, there would not be the impact of additional sediments from Red Creek Canyon.

Transportation Networks: *Depending on its exact location within Jesse Ewing Canyon, the MAPCO alternative could significantly affect the county road. In addition, it could affect the existing MAPCO pipeline in one of three ways, all of which are significant.*

- *If improper construction techniques are used, the existing pipeline would be adversely affected.*
- *Since the canyon is quite narrow in spots, proper or normal construction techniques could adversely affect the existing MAPCO pipeline.*
- *MAPCO may be required to temporarily shut down operation of its pipeline, in order to avoid chemical fires or explosions caused by accidental damage to the pipeline during construction of the alternative. Even if no accident occurred, temporary suspension of operation would significantly affect MAPCO and its consumers.*

Wildlife: This alternative would disturb 18 less acres of short-term, normal winter elk range than the proposed action. However, 50 more acres of short-term, critical pronghorn range would be disturbed by this alternative. All other wildlife habitat losses would be the same as those indicated for the proposed action.

Visual Resources: The only difference between this alternative and the proposed action is that 12 less acres of VRM Class II would be disturbed by implementation of this alternative.

Land Use Plans: This alternative would not conflict with the BLM Vernal District Management Framework Plan which restricts the location of new pipelines, as would the proposed action. The proposed action would affect 10 miles of land that would be in conflict with this plan; the alternative would affect none.

Soils and Vegetation: This alternative would disturb 16 less acres than the proposed action, and would cross 3 less acres identified as sensitive.

Agriculture: Grazing losses from implementation of the MAPCO alternative would be 1 AUM less per year for 2 to 5 years than the proposed action.

Northwest

This route would be about 10 miles shorter than the proposed action route; therefore, most of the

TABLE 2-5
PHOSPHATE SLURRY PIPELINE COMPARATIVE ANALYSIS

Element	Proposed Action (Red Creek Canyon)	MAPCO Alternative	Northwest Alternative	Willow Creek Alternative
TOTAL LENGTH (A+B) OF SLURRY PIPELINE—Miles	98.2	96.3 (-1.9)	88.1 (-10.1)	96.8 (-1.4)
ENERGY USE—Btu's/Hour	12,730,452	12,484,139 (-246,313)	11,421,108 (-1,309,344)	12,548,958 (-181,494)
WATER RESOURCES				
Water Quality of Green				
River Affected:				
Increased Suspended Sediment (mg/l)				
Little Hole to Red Creek (but not including Red Creek)	None	None	River crossing 1,200 mg/l at 50 feet, 140 mg/l at 100 feet, 3 mg/l at 200 feet	None
Red Creek to Brown's Park	River crossing 1,200 mg/l at 500 feet, 140 mg/l at 100 feet, 3 mg/l at 200 feet, plus some unquantifiable amount from Red Creek during construction	River crossing 1,200 mg/l at 50 feet, 140 mg/l at 100 feet, 3 mg/l at 200 feet	None	River Crossing 1,200 mg/l at 50 feet, 140 mg/l at 100 feet, 3 mg/l at 200 feet
TRANSPORTATION NETWORKS				
Significant Interference to: Roads	None	(+Jesse Ewing Canyon road 3 miles)	(+Little Home campground road, 0.5 mile)	(+Jesse Ewing Canyon road, 1 mile)
Pipelines	None	(+MAPCO, 3 miles)	(+Northwest 0.25 mile)	(+MAPCO, 1 mile)
WILDLIFE				
Mule Deer Habitat Loss—Acres				
Critical Winter Range				
Short-Term	209	209 (0)	183 (-26)	209 (0)
Long-Term	4.25	4.25 (0)	4.25 (0)	4.25 (0)
Normal Winter Range				
Short-Term	211	211 (0)	211 (0)	211 (0)
Long-Term	0.75	0.75 (0)	0.75 (0)	0.75 (0)
Summer Range				
Short-Term	81	81 (0)	81 (0)	81 (0)
Long-Term	0	0	0	0
Yearlong Range				
Long-Term	0.50	0.50 (0)	0.50 (0)	0.50 (0)

TABLE 2-5 (Continued)
PHOSPHATE SLURRY PIPELINE COMPARATIVE ANALYSIS

Element	Proposed Action (Red Creek Canyon)	MAPCO Alternative	Northwest Alternative	Willow Creek Alternative
Elk Habitat Loss — Acres				
Normal Winter Range				
Short-Term	358	340 (-18)	345 (-13)	331 (-27)
Long-Term	4.50	4.50 (0)	4.50 (0)	4.50 (0)
Pronghorn Habitat Loss—Acres				
Critical Winter Range				
Short-Term	65	115 (+50)	77 (+12)	115 (+50)
Long-Term	3	3 (0)	3 (0)	3 (0)
Normal Winter Range				
Short-Term	142	142 (0)	142 (0)	142 (0)
Long-Term	0	0	0	0
Summer Range				
Short-Term	119	119 (0)	119 (0)	119 (0)
Long-Term	0	0	0	0
Yearlong Range				
Short-Term	31	24 (-7)	24 (-7)	24 (-7)
Long-Term	1.25	1.25 (0)	1.25 (0)	1.50 (0)
Sagegrouse Habitat Loss—Acres				
Short-Term	375	375 (0)	375 (0)	375 (0)
Long-Term	0.25	0.25 (0)	0.25 (0)	0.25 (0)
Prairie Dog Habitat Loss—Acres				
Short-Term	119	119 (0)	119 (0)	119 (0)
Long-Term	0	0	0	0
VISUAL RESOURCES¹				
Acres Affected				
VRM Class II	64	52 (-12)	40 (-24)	52 (-12)
VRM Class IV	3	3 (0)	3 (0)	3 (0)
VQO R	0	0	24 (+24)	0
LAND USE PLANS				
Conflicts with BLM MFPs				
Miles of Pipeline	10	0 (-10)	5 (-5)	4 (-6)
Conflicts with FS Flaming Gorge ARA Management Plan				
Miles of Pipeline	0	0	2.9 (+2.9)	0

TABLE 2-5 (Concluded)

PHOSPHATE SLURRY PIPELINE COMPARATIVE ANALYSIS

Element	Proposed Action (Red Creek Canyon)	MAPCO Alternative	Northwest Alternative	Willow Creek Alternative
RECREATION RESOURCES				
Major Areas Affected Short Term	None	None	Flaming Gorge NRA Little Hole Campground	None
SOILS AND VEGETATION				
Acres Disturbed/Duration	640/1 year	624/1 year (-16/1 year)	580/1 year (-60/1 year)	627/1 year (-13/1 year)
Acres Removed/Duration	5/30 years	5/30 years (0)	5/30 years (0)	5/30 years (0)
Acres Requiring Reclamation	635	619 (-16)	575 (-60)	622 (-13)
Acres of "Sensitive Areas" **	214	211 (-3)	242 (+28)	216 (+2)
AGRICULTURE				
Grazing Loss AUM/2-5 years	32	31 (-1)	29 (-3)	31 (-1)

Note: MFP's = Management Framework Plan; FS = Forest Service; AUM = animal unit month; mg/l = milligrams per liter; NRA = National Recreation Area.

Figures indicated inside parentheses are the difference between the proposed action and the alternative.

- indicates less than the proposed action; + indicates more than the proposed action.

* Refer to Appendix 6 of the draft EIS, for definition of terms.

** Refer to Chapter 4, Section 4.2.11, of the draft EIS, for definition and description of sensitive areas.

COMPARATIVE ANALYSIS — PHOSPHATE SLURRY PIPELINES

impacts would be less, as indicated in Table 2-5. However, the alternative would cross 4.7 more miles of sensitive areas than the proposed action (*Chapter 4, Section 4.2.11, of the draft EIS*), resulting in the disturbance of 28 more acres of sensitive areas. Of major importance, however, is the fact that this alternative is in conflict with the law, intent, and purpose for which Congress established the Flaming Gorge NRA.

This route would only cross two key issue areas: Goslin Mountain and Red Creek Basin Escarpment; whereas, the proposed action would cross three: Rye Grass Draw, Red Creek Canyon, and Red Creek Basin Escarpment.

Impacts for the following resources would be the same for this alternative as those detailed in the draft EIS, for the proposed action Red Creek Canyon phosphate slurry pipeline:ocioeconomics,

air quality, recreation, cultural resources, and health and safety. Impacts that would be different are identified in the following resource discussions.

Water Resources: This route would cross the Green River at Little Hole Campground and proceed around Goslin Mountain into Clay Basin. Since the Northwest alternative would not traverse Red Creek Canyon, this route would not have the impacts that are associated with the proposed action route.

Transportation Networks: This route would interfere with *traffic flow* on the road to Little Hole Campground, *would require minor reconstruction of the road*, and could possibly interfere with the operation of the existing Northwest pipeline; the proposed action would not affect these areas.

Wildlife: The Northwest alternative would disturb 26 less acres of short term, critical winter mule deer

COMPARATIVE ANALYSIS — PHOSPHATE SLURRY PIPELINES

range and 13 less acres of short-term, normal winter elk range and yearlong pronghorn range than the Red Creek Canyon pipeline. However, short-term losses to critical winter pronghorn range would be 12 acres more. All other wildlife habitat losses would be the same as those indicated for the proposed action, **Chapter 4, page 4-24, of the draft EIS.**

Visual Resources: This alternative would disturb 24 less acres of VRM Class II land than the proposed action. However, the alternative would disturb 24 acres of VQO Class R, Forest Service **NRA** land, whereas the proposed action would not.

Land Use Plans: This alternative would conflict with the BLM Vernal District Management Framework Plan which restricts the location of new pipelines. About 5 miles of pipeline would be in conflict, but this is 5 miles less conflict than the proposed action route. However, this alternative would affect 2.9 miles within the Flaming Gorge **NRA** which conflicts with the Flaming Gorge **NRA** Management Plan.

Recreation: This route would affect the use of the Little Hole Campground while the proposed action would not.

Soils and Vegetation: This alternative would disturb 60 less acres than the proposed action; however, 24 more acres of sensitive areas would be disturbed by implementation of this alternative compared with the proposed action.

Agriculture: Grazing losses from implementation of the Northwest alternative would be 3 AUM's less per year for 2 to 5 years than the proposed action.

Willow Creek

This alternative would be the same as the MAPCO alternative, except it would avoid the steep lower section of Jesse Ewing Canyon. This route would pass through three key issue areas and a portion of a fourth: Rye Grass Draw, Willow Creek, Red Creek Basin Escarpment, and the north portion of Jesse Ewing Canyon as compared with the three identified for the proposed action route. (Refer to discussion of the Northwest alternative *in this section.*)

Impacts for the following resources would be the same for this alternative as those detailed *in Chapter*

4 of the draft EIS, for the proposed action, Red Creek Canyon phosphate slurry pipeline: socio-economics, air quality, recreation, cultural resources, and health and safety. Resources that would have different impacts from those indicated for the proposed action are identified in the following resource discussions.

Water Resources: This route would exit Brown's Park to the east of Jesse Ewing Canyon, instead of Red Creek Canyon. Therefore, impacts to water quality in the Brown's Park area would be somewhat less than the proposed action, since there would not be the additional sediment load from Red Creek Canyon.

Transportation Networks: *Depending on its exact location within the Jesse Ewing Canyon*, this alternative *could* have significant impacts to the county road and MAPCO pipeline for about 1 mile at the north end of Jesse Ewing Canyon; the proposed action route would have none. *Refer to the discussion of the MAPCO alternative in this section for possible impacts to the existing MAPCO pipeline.*

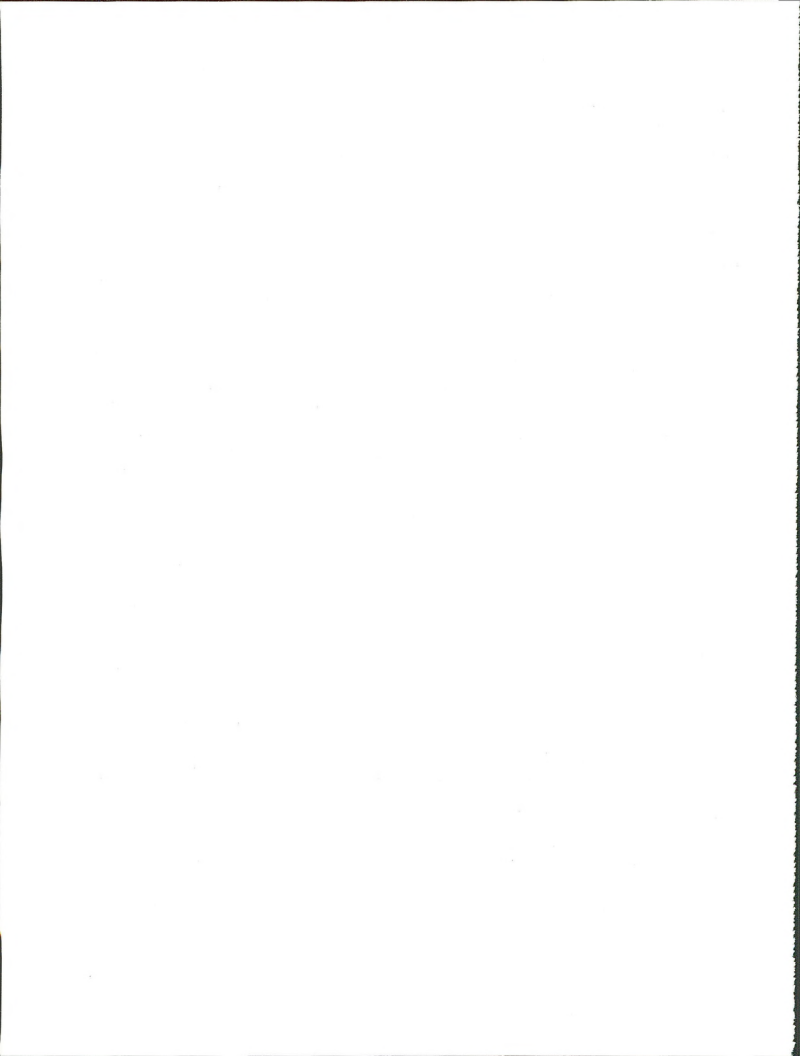
Wildlife: The Willow Creek alternative would disturb 50 more acres of short-term, critical winter pronghorn range than the proposed action. However, less than 27 acres of winter elk range would be disturbed. All other wildlife habitat losses would be the same as those indicated for the proposed action, **Chapter 4, page 4-24, of the draft EIS.**

Visual Resources: This alternative, like the MAPCO alternative, would disturb 12 less acres of VRM Class II land than the proposed action.

Land Use Plans: This alternative would conflict with the BLM Vernal District Management Framework Plan which restricts the location of new pipelines. About 4 miles of pipeline would be in conflict, but this is 6 miles less conflict than the proposed action.

Soils and Vegetation: This alternative would disturb 13 less acres than the proposed action; however, 2 more acres of sensitive area would be disturbed by this alternative compared with the proposed action.

Agriculture: Grazing losses would be 1 AUM less per year for 2 to 5 years than the proposed action.

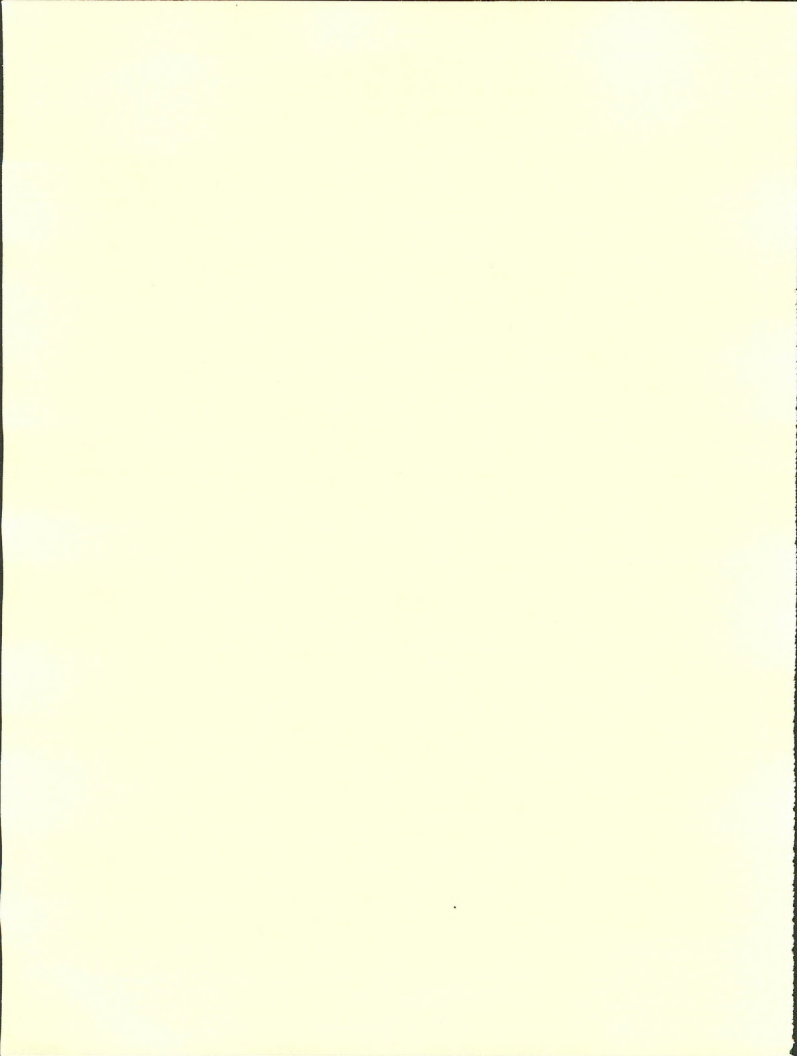


SECTION 3

NIGHTINGALE STATION PLANT PROCESS WATER SUPPLY PIPELINE ALTERNATIVE



INDIAN RICE GRASS



SECTION 3

THE NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE ANALYSIS

3.1 DESCRIPTION

This alternative was proposed by Chevron (applicant) shortly after the draft EIS was published. The intent for the proposal was to develop a viable alternative to the Davis Bottom plant process water pipeline and the Middle Firehole alternative by locating the pipeline outside of the Flaming Gorge National Recreation area (NRA). (This is also a permitting contingency established by ISA.) The 18-inch diameter pipeline would originate at the plant site located near Rock Springs, Wyoming, and extend for 17.4 miles to the Union Pacific railroad switching yard near the city of Green River.

The Nightingale Station alternative would follow Wyoming State Highway 430 for about 1.1 miles after leaving the plant site. From this point, it would turn west for about 1.8 miles where it would intersect the Trailblazer right-of-way. (Refer to Map 3-1 for exact location of this alternative, and to Chapter 1, page 1-16, of the draft EIS, for construction techniques and operation.)

From the point of intersection, the water pipeline alternative would parallel the Trailblazer right-of-way for about 9 miles, crossing Sweetwater Creek at MP 5.5, Little Bitter Creek at MP 7.1, and pass approximately 0.25 mile north of the Nightingale Station at about MP 10.5.

From MP 11.9 to MP 16.3, it would parallel the existing Mountain Fuel, Pioneer, and Colorado Interstate Gas pipelines. From there, it would continue west crossing Bitter Creek at MP 16.7 and then follow the Union Pacific railroad to the intake structure site on the Green River, located in the SE ¼ of Section 23, T.18 N., R.107 W., Sixth Principal Meridian, adjacent to the Union Pacific railroad switching yard.

The total length of this alternative would be 17.4 miles. Of this length, the buried pipeline would be located adjacent to an existing linear right-of-way for 14.9 miles, and would be located in a new area for 2.5 miles. Refer to Appendix 3 for land status and ownership, and Table 3-1 of this EIS for total acres that would be disturbed, removed, and reclaimed with implementation of this alternative.

The 18-inch diameter pipeline and the pump station design would be the same as those described for the proposed action. The water intake structure and pump station would occupy about 1 acre. These facilities, similar to those identified for the proposed action in Chapter 1, pages 1-24 and 1-25, of the draft EIS, would be located adjacent to a highly industrialized area. Because of this industrialization, power and communication facilities are readily available. Therefore, no microwave station would be required.

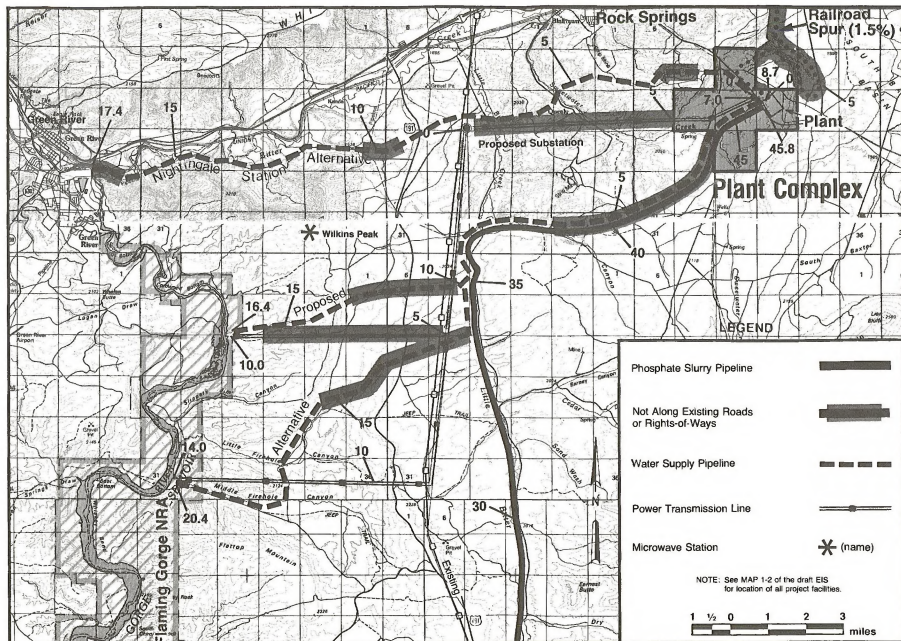
TABLE 3-1
ACRES DISTURBED, REMOVED, AND RECLAIMED
NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE

Component	Length (Miles)	Construction Width (Feet)	Acres Disturbed ^a	Acres Removed ^b	Acres Reclaimed ^c
Pipeline	17.4	50	105	0	105
Access Road	0	0	0	0	0
Power Transmission Line	0	0	0	0	0
Pump Station	NA	NA	1	1	0
TOTAL	17.4	NA	106	1	105

^a Amount of acreage disturbed during construction.

^b Amount of acreage removed for the life of the project.

^c Amount of acreage returned to preconstruction/vegetation density upon completion of construction.



MAP 3-1 NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE

NIGHTINGALE STATION — DESCRIPTION

TABLE 3-2

*MILES OF FACILITIES NOT ADJACENT TO
EXISTING ROADS OR OTHER RIGHTS-OF-WAY
NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE*

Ownership/Management	Location by State* Wyoming
Private	1.2
BLM	1.3
Forest Service	0.0
State of Wyoming	0.0
TOTAL	2.5

* The alternative would not affect the State of Utah.

Power to the site would be supplied from an existing Pacific Power and Light power distribution line located near the railroad switching yard. Access to the intake structure would be provided along existing roads located throughout the Union Pacific railroad switching yard. (Refer to Table 3-2 for identification of alternative pipeline facilities that would not be adjacent to existing roads or rights-of-way.)

3.2 AFFECTED ENVIRONMENT

The affected environment for the Nightingale Station plant process water pipeline is that portion of the existing environment that would be affected by the proposed alternative. This part provides only information about the environment that would be significantly affected by implementation of the Nightingale Station alternative as determined by the impact analysis presented in Part 3.3. The affected environment for the following resources would be the same for this alternative as described for the proposed action in Chapter 3 of the draft EIS: water resources, socioeconomic, air quality, land use plans, and wilderness. No cropland would be affected by implementation of this alternative.

Refer to Chapter 3, page 3-1, of the draft EIS, for information regarding the impact area of influence for all resources.

3.2.1 Transportation Networks

Between MP 11.9 and 16.3, the Nightingale Station

alternative would be located in an existing corridor shared by the Mountain Fuel, Pioneer, and Colorado Interstate Gas pipelines. In addition, from MP 16.7 to 17.4 at the pump station, the alternative pipeline would be located within 100 feet of the Union Pacific Railroad.

3.2.2 Wildlife

The Nightingale Station alternative would affect (refer to Maps A4-7B and A4-9B in the draft EIS):

- 11.5 miles — summer mule deer range
MP 0-2.5 and MP 7.5-16.5
- 5.9 miles — yearlong mule deer range
MP 2.5-7.5 and MP 16.5-17.4
- 14.4 miles — normal winter pronghorn range
MP 3-17.4
- 3.0 miles — summer pronghorn range
MP 0-3
- 5.9 miles — sage grouse general distribution range
MP 2.5-7.5 and MP 16.5-17.4
- 5.0 miles — whitetail prairie dog general distribution range
MP 6-11

No elk range would be affected from implementation of this alternative. However, the pump station would be located on general small mammal habitat near the Green River, adjacent to the Union Pacific railroad switching ground.

NIGHTINGALE STATION — AFFECTED ENVIRONMENT — VISUAL RESOURCES

3.2.3 Visual Resources

Implementation of the Nightingale Station alternative would affect the variety of topography and vegetation that is typical of the Wyoming Basin physiographic province. Cultural modifications include roads, utility lines, railroads, underground pipelines, and the urbanized fringes of the community of Green River. The right-of-way would affect 11 miles of VRM Class III area along the Bitter Creek drainage and near the Green River; in addition, it would traverse 6 miles of VRM Class IV area near the plant site. Refer to Map A4-10B of the draft EIS, and Table 3-3, which follows, for the locations and extent of VRM classes affected by implementation of alternative.

3.2.4 Recreation Resources

There are no recreation facilities located along the alternative route. Recreational opportunities in this area are of the dispersed type. River rafters and canoeists who float the Green River from entry would pass and be able to view the water intake structure and pump station (MP 17.4) along the east bank of the river.

3.2.5 Cultural Resources

The Nightingale Station alternative has not been surveyed for cultural resources. Portions of the pipeline corridor have been surveyed for other projects. Thirty prehistoric sites have been recorded in the corridor and include campsites and lithic scatters. There is at least one petroglyph site known within the corridor, but it has not been recorded (Decker 1983).

3.2.6 Soils and Vegetation

This alternative would cross soils similar to those described for the proposed action in Chapter 3, page 3-28, of the draft EIS. These soils consist mainly of the following general soil groups: (1) soils on nearly level to sloping terrains and floodplains; (2) soils on rolling to hilly upland high terrains, alluvial fans and plateaus; and (3) shallow, steep sloping soils with rock outcrops. The average annual precipitation ranges from about 7 to 9 inches.

The pump station would be located on barren land consisting of made land bordering the Green River. (Note: made land = areas filled with earth and trash, with less than 50 percent earthy material in the control section, or with a cover of earthy material less than 20 inches thick; formerly a miscellaneous land type.)

(Appendix 7 of the draft EIS contains a brief description of soil groups and Table 3-6 of the Environmental Consequences, Part 3.3, of this EIS contains the identification and extent of sensitive areas that would be affected by implementation of this alternative.)

In addition, this alternative would traverse the following generally distributed vegetation types:

- 11.9 miles of sagebrush/grass
- 1.7 miles of pinyon-juniper
- 1.3 miles of greasewood
- 2.0 miles of saltbush
- 0.5 mile of barren land (rock outcrop and made land)

3.2.7 Agriculture

This alternative would cross only one allotment: the Rock Springs grazing allotment (MP 0-17.4).

TABLE 3-3

TOTAL MILES AND ACRES OF VISUAL RESOURCE VRM CLASSES AFFECTED BY THE NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE

Component	VRM Class ^a	Number of Miles	Acres Affected by VRM Class
Plant Process Water Pipeline with Pump Station	III	11	69
	IV	6	37

^a Refer to Appendix 6, Visual Resource Management Methodologies, in the draft EIS for definitions of terms.

NIGHTINGALE STATION — CONSEQUENCES — TRANSPORTATION

3.3 ENVIRONMENTAL CONSEQUENCES

Implementation of the Nightingale Station alternative would not create any significantly different impacts to water resources, socio-economics, nor health and safety from those identified for the proposed action in Chapter 4 of the draft EIS. No land use plans or cropland would be affected by construction and operation of this alternative. Impacts to air quality would be less than the proposed action, because the acres affected by this alternative would be less.

3.3.1 Transportation Networks

Improper construction of the Nightingale Station alternative could damage or require one or more of the existing pipelines to shut down, thereby causing a significant but short-term impact. In addition, if careful construction techniques are not employed, the alternative could adversely affect 0.7 miles of the Union Pacific Railroad.

3.3.2 Wildlife

The Nightingale Station Plant Process Water Pipeline Alternative would disturb about 105 acres of mule deer and pronghorn range over the short term. Additionally, about 1 acre of deer and pronghorn range would be lost for the life of the

project. Approximately 36 acres of sage grouse habitat would be disturbed over the short term and 1 acre would be lost for the life of the project. About 30 acres of whitetail prairie dog habitat would be disturbed for the short term. (Table 3-4 of this EIS itemizes long-and short-term wildlife habitat disturbances by habitat type.)

However, it should be noted that while these acres have been classified generally by the Wyoming Game and Fish Department, the specific areas which would be affected by the alternative are located in an area of heavy industrial development (town of Green River, Union Pacific Railroad, etc.). Therefore, impacts to wildlife and habitat from implementation of this alternative are anticipated to be insignificant because of the existing development in the area which makes the habitat used by wildlife virtually unused.

Potential impacts to the endangered black-footed ferret would be the same as those detailed in the proposed action section for the Davis Bottom plant process water pipeline in the draft EIS.

3.3.3 Visual Resources

This alternative would significantly and adversely affect visual resources as summarized in Table 3-5 of this EIS. The placement of the project in these areas would exceed the allowable levels of contrast for the VRM class established for specific portions

TABLE 3-4

ACRES OF WILDLIFE HABITAT DISTURBED BY THE NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE

Species and Type of Habitat	Total Acres	
Mule Deer		
Summer Range	69	(0)
Yearlong Range	37	(1)
Pronghorn		
Normal Winter Range	88	(1)
Summer Range	18	(0)
Sage Grouse		
General Distribution Range	37	(1)
Whitetail Prairie Dog		
General Distribution Range	30	(0)

NOTE: Acreage figures not enclosed in parentheses represent acres disturbed (short term); acreage figures enclosed in parentheses represent acres removed for the life of the project (long term).

NIGHTINGALE STATION — CONSEQUENCES — SOILS AND VEGETATION

TABLE 3-5

ACRES OF SIGNIFICANT ADVERSE VISUAL RESOURCE IMPACTS CAUSED BY THE NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE

Component and Location	VRM Class	Acres Significantly Affected	Location and Duration of Impacts	Explanation
BURIED WATER PIPELINE				
MP 14-15	III	6	Viewed from Interstate Highway 80 (long-term)	Contrast in shape of landform modification and soil color where pipeline would be buried.

Refer to Appendix 6, Visual Resource Management methodologies, in the draft EIS for definition of terms.

of the area. Refer to the significance criteria section, Chapter 4, page 4-4, of the draft EIS for a description of the criteria used to determine the significance of visual resource impacts which would occur if this alternative pipeline were constructed. However, it should be noted that implementation of this alternative would not have the visual intrusion of a microwave tower as is associated with the Davis Bottom process water supply pipeline and the Middle Firehole Alternative.

3.3.4 Recreation Resources

The implementation of this alternative would not cause any major short-term or long-term impacts to either the recreation resource or the quality of the recreation user's experience. Based on the significance criteria identified in Chapter 4, page 4-4, of the draft EIS, river rafting and canoeist sensitivity from viewing the water intake and pump station would be low since several other structures are visible at MP 17.4 (i.e., railroad signal station, railroad yard, other pipelines, and the town of Green River).

3.3.5 Cultural Resources

Construction of the Nightingale Station alternative would cause surface disturbance that could affect cultural resources as described in Chapter 4, page 4-33, of the draft EIS. None of the 30 known sites, identified in the alternative corridor, have been evaluated for significance.

3.3.6 Soils and Vegetation

This alternative would disturb 106 acres of land, of which 105 acres would be reclaimed. The remaining 1 acre would be removed from production for the life of the project. Refer to the proposed action section, Chapter 4, page 4-34, of the draft EIS for discussion of potential impacts to soils and Table 3-6 of this EIS for location and extent of the larger sensitive areas requiring more intensive construction, stabilization, and restoration measures.

Understory vegetation would return to preconstruction densities within 5 years following construction, while overstory vegetation would require longer periods as detailed in the proposed action section, Chapter 4, page 4-36, of the draft EIS. A total of 72 acres of sagebrush/grass, 10 acres of pinyon-juniper, 8 acres of greasewood, 12 acres of saltbush, and 3 acres of barren land (made land) would be disturbed. In addition, the pump station would remove 1 acre of barren land for the life of the project. The 105 acres which would be reclaimed would revegetate through implementation of practices proposed by Chevron and stipulated by the authorized officer. Certain unquantified localized areas and specific locations identified in Table 3-6 of this EIS would require close supervision and possibly additional measures to achieve satisfactory revegetation. The pump station would remove 1 acre of barren land for the life of the project.

NIGHTINGALE STATION — CONSEQUENCES — SUMMARY

TABLE 3-6

AREAS MOST SUSCEPTIBLE TO IMPACTS FROM THE NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE ACTIVITIES

Project Component	Location by Milepost	Extent Miles (Acres)	Sensitive Area Description and Comments			
			Precipitation Less Than 9 Inches	Slopes (15% +)	Unfavorable ¹ Soils Properties	Other
Pipeline (MP 0.0—17.4)	0.8- 1.0	0.2	X	X	X	
	1.2- 1.7	0.5	X	X	X	
	2.7- 2.8	0.1	X	X	X	
	4.6- 4.7	0.1	X	X	X	
	6.4- 6.6	0.2	X	X	X	
	12.4-12.5	0.1	X	X	X	
	13.8-13.9	0.1	X	X	X	
	14.0-14.6	0.6	X	X	X	
	15.8-16.0	0.2	X	X	X	
	17.1-17.3	0.2	X	X	X	
						Restricted area between railroad and stream channel
TOTAL		2.3 (14)				

NOTES: Table prepared from soils-terrain analysis and orthophotograph interpretations. Milepost (MP) locations are approximate, based on general, preliminary pipeline right-of-way information.

¹ Unfavorable soil property parameters:

- shallow over bedrock
- underlain by hard bedrock
- sandy loam sand and clay textured surface and subsoil layers
- containing more than 35 percent coarse fragments by volume, exceeding sizes of 3 inches in diameter
- permeability less than 0.6 inch per hour
- water table less than 72 inches
- soil reaction with pH value greater than 8.5, salinity more than 16 millimhos in the upper 40 inches.
- occupying slopes steeper than 15 percent.

These soils are most susceptible to impacts and have low reclamation potential.

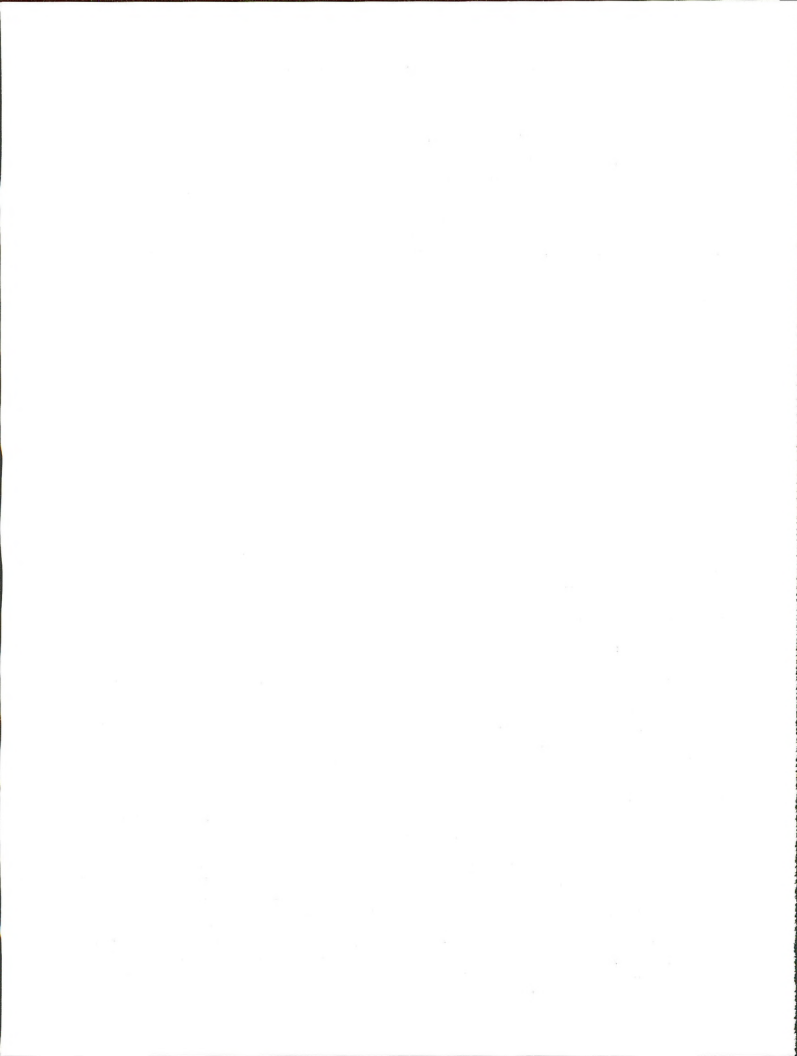
3.3.7 Agriculture

Four animal unit months of forage would be lost for 2 to 5 years from implementation of this alternative. However, this would be considered an insignificant loss on the Rock Springs allotment.

3.4 SUMMARY

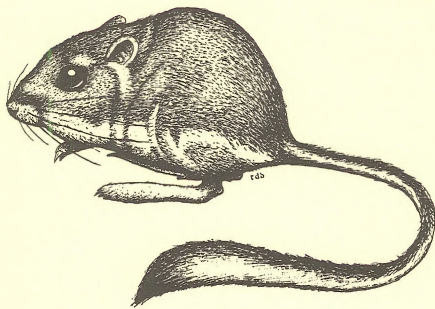
Implementation of this alternative is not anticipated to significantly affect wildlife, recreation, agriculture, or cropland. The alternative would affect 6 acres of Class III visually sensitive areas and could affect 30

cultural resource sites. Impacts to other resources would be similar to those identified for the proposed action (Davis Bottom) in Chapter 4 of the draft EIS, except that no impacts would occur within the NRA boundaries. In addition, no power distribution lines would be required since power is already available within proximity of the pumping station. New access roads for the alternative would not be required because of existing access roads available for use in the railroad switching yard. Mitigation and monitoring, as applicable to this alternative, are identified in Chapter 4, page 4-58, of the draft EIS.

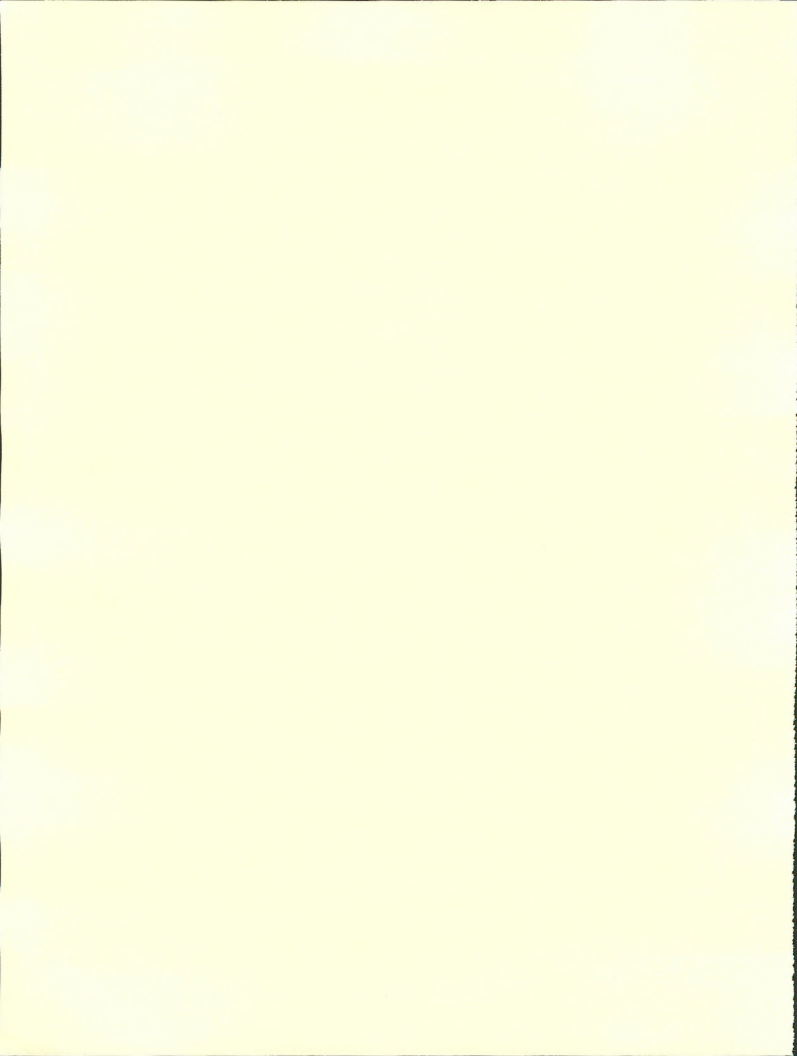


SECTION 4

ERRATA SUMMARY



ORD KANGAROO RAT



SECTION 4

ERRATA SUMMARY

Based on the comments received regarding the Chevron Phosphate draft EIS, the following revisions have been made. Only one general comment has been identified:

The term *power transmission lines* was used incorrectly in the draft EIS. There would be no

power transmission lines with the implementation of the proposed action and/or any of the alternatives. The correct term should be *power distribution lines*.

The remainder of the comments required specific text changes. These are as follows:

Page	Column	Paragraph	Line	Is	Should Be
1-6	3,	Table 1-2		Modification of the Upper Colorado River Compact; Colorado Revised Statute Title 37-67-101; approval of five Colorado General Assemblies; and amending the Congressional Consent to Compact Act of 1949 (63 Statute 31)	An agreement between Wyoming, Colorado, and Utah in order to convey water through the Jensen Diversion may be necessary.
1-7	All	Table 1-2		N/A	Add (after Water Quality Division): Agency: Land Quality Division Nature of Action: Issue permit to mine clay for gypsum impoundment construction Authority: Wyoming Environmental Quality Act, W.S. 35-11-401 (a) Project Feature: Plant complex
1-9	All	Table 1-2		Agency: Wyoming Water Development Commission Nature of Action: Approval of water development Project Feature: Wells, gathering system, plant complex and utilities	Deleted
1-10	2 All	Table 1-2	4 6	Certificate to appropriate water N/A	Application to appropriate water Add (Under Division of Water Rights): Nature of Action: Issue permit to appropriate water Authority: Utah Code Annotated Section 73-3-1 to 29 (1968) Project Feature: Phosphate slurry pipeline
1-11	All	Table 1-2		Agency: Utah State Engineers Office Nature of Action: Issue permit to appropriate water Authority: Utah Code Annotated Section 73-3-1 to 29 (1968) Project feature: Phosphate slurry pipeline	Deleted
1-16	right	4	last	N/A	Add: Included with the ground phosphate slurry would be two corrosion inhibitors (lime at 1 pound per ton of solids and sodium sulfite at 75 mg/l of water) and a scale inhibitor (Cyquest 3270 at 5 parts per million).
1-24	right	3	1 3	The water intake structure would withdraw... ...the Green River (Figure 1-3). Intake water would...	The water intake structure would initially withdraw... ...the Green River (Figure 1-3). As production increases, the amount withdrawn would increase to approximately 16 cubic feet per second of water. Intake water would...
1-26	left	2	21	MP A423	MP A42
1-29	right	last P	1-2	Water for the phosphate slurry pipeline would be required at an initial rate of 830 acre-feet per year.	Deleted
			4	...pipeline would eventually be 1,290 acre-feet per...	...pipeline would be between 1,330 and 2,030 acre-feet per...

ERRATA SUMMARY

Page	Column	Paragraph	Line	Is	Should Be
1-34	right	last	7-11	...the Colorado State Engineer would have to approve the appropriation of the water from Colorado. This would likely require a modification of the Colorado River Compact.	...there might need to be an agreement with Wyoming, Colorado, and Utah to convey water to the Jensen Diversion.
1-35	left	last	first item	October 1982	March 1983
	right		first item	September 1983	November 1983
			second item	March 1984	June 1984
			third item	December 1984	March 1985
		1	10	The unit would supply 14,400 acre-feet...	The unit would supply 12,000 acre-feet...
3-1	right	4	4	...noise, dust, and similar factors.	...noise, dust, reduced amounts of forage, and similar factors.
3-17	left	1	3	MP 07	MP 0-7
3-19	Table 3-12		3	Bonytall Chub	Delete line
			last	N/A	Various species of migratory waterfowl
					Add (under Aquatics): X
					Add: raptor nesting.
3-21	left	first P	2	N/A	The Rock Springs District Wilderness draft EIS (1983), issued after publication of the draft Chevron Phosphate Project EIS, recommends that the Red Creek Badlands WSA be managed as non-wilderness for other multiple-use objectives. A final EIS and study report on the Rock Springs wilderness review program is...
3-24	right	3	18-23	A draft EIS concerning site-specific wilderness unit and district-wide alternatives for the BLM Rock Springs District is expected to be submitted for public review by January 1983. Subsequently, a final EIS and study report on the wilderness review program is...	Boats (Weekday Use)
3-25	3	Table 3-15		Boats (Weekend Use)	Boats (Weekday Use)
3-27	left	2	4-5	...traverse a former town dump and a portion of the Overland Trail.	...traverse a portion of the Overland Trail and pass within 0.5 mile of a former town dump.
3-31	2	Table 3-18	1	50.0	5.0
3-32		Table 3-19		N/A	See Table 3-19 following this page, for revisions.
3-36	left	2	4-5	In addition the water intake structure could affect the humpback chub.	Deleted
3-36	right	1		N/A	Add: A pump house and intake structure would be located on the Green River near Jensen, Utah. This segment of the Green River from Range Creek to the Yampa River possesses values that have been identified as being nationally significant and may be eligible for study and possible inclusion into the National Wild and Scenic Rivers System (NPS 1982).
3-37	left	3	2,8	1.1 miles	2.0 miles
3-38	left	1	3-5	Although each alternative would cross the Green River at a different location, the type of riparian and stream habitat would be the same as the proposed action.	Each of the three alternatives would cross the Green River at MP 33.5, the same location as the proposed action; therefore, the riparian and aquatic stream bottom habitat is exactly the same as that identified for the proposed action.
3-41	left	last		The Northwest alternative would cross a portion of the Goslin Mountain roadless area, which was evaluated by the Forest Service during the second Roadless Area Review and Evaluation (RARE II) for inclusion in the National Wilderness Preservation System. Although this area was recommended for...	Deleted

TABLE 3-19

**GRAZING ALLOTMENTS BY MILEPOST AFFECTED BY THE PROPOSED
ACTION AND ALTERNATIVES**

Land Admini- stration	Allotment	Livestock Class	Season of Use	Slurry Pipelines			Willow Creek	Slurry Water Supply Jensen Alternative*	
				Red Creek Canyon	MAPCO	Northwest			
UTAH									
SEGMENT A									
B	Sadler	C-S	S-F-W					0 - 1.5	
B	Powell	S	W					1.5 - 3.0	
B	S.J. Hatch	S	W					3.0 - 4.5	
B	Sunshine Bench	C	S-F-W	0 - 3	0 - 3	0 - 3	0 - 3	4.5 - 10.5	
B	Brush Creek	C	S	3 - 6	3 - 6	3 - 6	3 - 6	10.5 - 15.0	
P	Donkey Flat	C	S-Su-F	6 - 8	6 - 8	6 - 8	6 - 8		
P	Diamond Mountain	S-C	S-Su-F	8 - 17	8 - 17	8 - 17	8 - 17		
B	Diamond Rim	S	W	17 - 18	17 - 18		17 - 18		
B	Diamond Spring	S	S-Su W-F	18 - 20	18 - 20		18 - 20		
B	Gadson	C	S-F	20 - 23	20 - 23		20 - 23		
B	Mail Draw	C	S-Su-F	23 - 25	23 - 25		23 - 25		
B	Crouse Reservoir	C	S-Su-F	25 - 28	25 - 28		25 - 28		
B	Rye Grass	O	O	28 - 33	28 - 33		28 - 33		
B	Watson	C	S	33 - 34	33 - 34		33 - 34		
B	Bridgeport	C	S	34 - 39	34 - 37		34 - 37		
B	Willow Creek	C	S-Su	39 - 41			37 - 40		
B	Clay Basin	C	S-Su-F	41 - 47	43 - 47		40 - 47		
B	Red Creek Flat	C	S		37 - 43				
B	Beaver Dam	S	S-Su			17 - 22			
F	Pot Creek	C	Su			22 - 25			
F	Davenport	C	Su			25 - 27			
B	Little Hole	C	S-Su-F			27 - 29			
B	Little Davenport	C	Su			29 - 30			
F	Davenport	C	Su			30 - 32			
F	Goslin Mountain	C	Su			32 - 42			
WYOMING									
SEGMENT A									
B	Red Creek	C	S-Su-F	47 - 52.4	47 - 50.5	42 - 42.3	47 - 51		
SEGMENT B									
B	Red Creek	C	S-Su-F	0 - 6.6	0 - 8.5	0 - 4.7	0 - 8		
B	Salt Wells	C-H	S-Su-F	6.6 - 10.6	8.5 - 12.5	4.7 - 8.7	8 - 12		
B	Mellor Mountain	C-H-S	S-Su F-W	10.6 - 17.6	12.5 - 19.5	8.7 - 15.7	12 - 19		
B	Rock Springs	C-S-H	Y	17.6 - 45.8	19.5 - 45.8	15.7 - 45.8	19 - 45.8		

*There would be no impacts to grazing allotments from implementation of any other component of the proposed action or from other alternatives.

Land Administration

B = Bureau of Land Management
F = Forest Service
P = Private Land

Season of Use

S = Spring
Su = Summer
F = Fall
W = Winter

Class Livestock

C = Cattle
S = Sheep
H = Wild Horses

ERRATA SUMMARY

Page	Column	Paragraph	Line	Is	Should Be
		first P		...non-wilderness designation, a recent court ruling in the Ninth Judicial District has ruled the RARE II process inadequate. This raises the possibility that the Goslin Mountain roadless area would require reevaluation for possible wilderness designation on a more site-specific basis.	Deleted
		1	9-12	N/A	Add: If construction of the Chevron Phosphate Project is delayed 2 years, as is anticipated, all reevaluations would probably be completed, thereby eliminating the need for further evaluation. If reevaluation is not completed within the 2-year period, any decision on the Northwest alternative would be delayed accordingly. If the Goslin Mountain Roadless Area is identified for wilderness designation, the Northwest alternative would be eliminated from further analysis.
4-2	Table 4-1			$\mu\text{g}/\text{m}^3$ = micrograms per cubic millimeter	$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter
4-3	Table 4-2				
4-6	left	first P	last	\$472,000	\$513,000
		1	last	N/A	Add: Implementation of the Big Sandy Unit could result in a decrease in salinity at Imperial Dam. (Refer to page 4-49 of the draft EIS for discussion regarding this project.)
4-13	left	1	4-5	This could possibly result in the loss of jobs for 15 truck drivers. However, since the truck drivers are...	Deleted
	right	P	1-5	...contract haulers, the ultimate loss is unpredictable as they may move to other jobs. At the same time, an increase of eight positions would be required at the mine. Therefore, the net loss in jobs would be insignificant.	Deleted
4-20	right	3	1	...will be 15.7 miles	...will be 16.4 miles
4-23	left	3	3-6	However, monitoring will be required in Rock Springs to assure that TSP concentrations are kept to a minimum.	Deleted
4-24	N/A	Table 4-21	foot- notes	1	2
			2		1
4-25	right	first P	2-6	The deposition of fluorine on vegetation normally used for food by pronghorn and sage grouse (Maps A4-7A and 7B) would cause fluorosis, which is a bone disease (Suttie 1971).	The deposition of fluorine on vegetation normally used for food by pronghorn and sage grouse (Map A4-7B) could cause fluorosis, which is a bone disease (Suttie 1971). If amounts above the tolerance level (which vary with other interacting factors) are ingested for long periods, fluorine toxicosis or fluorosis may result (Shupe 1969).
4-31	right	3	last	N/A	Add: the same impact concerns would be applicable on hiking experiences within the Davis Bottom area.

ERRATA SUMMARY

Page	Column	Paragraph	Line	Is	Should Be
4-36	left	last		Sagebrush/Grass: This species would be removed...	Sagebrush/Grass: This vegetation would be removed...
4-39	right	1	3	...1,053 acres of...	...1,033 acres of...
		2	2	...16 acres of greasewood,...	...116 acres of greasewood,...
			3-4	...and 17 acres of riparian vegetation...	...and 24 acres of riparian vegetation...
4-48	right	first P		N/A	Add new paragraph: The pump house and water intake structure along the Green River (near Jensen, Utah) would cause, to a certain degree, an adverse visual impact upon the quality of river running, hiking, hunting, and fishing experiences. Additionally, these permanent facilities could cause the permanent loss of a minimum of 0.5 mile of the Green River from any further consideration as a National Wild and Scenic River, and be incompatible with the identified <i>natural, scenic, recreational, geologic, fish, and wildlife values</i> of this Inventoried River (NPS 1982).
4-49	right	first item		Supply of 21,740 ac-ft/yr of water...	Supply of 12,000 ac-ft/yr of water...
		second item		Removal of 78,000 tons of salt annually...	Removal of 74,800 tons of salt annually...
		third item		...estimated at 6.7 milligrams per liter;	...estimated at 7.9 milligrams per liter;
4-50	right	1	1-3	Construction activities near Little Hole Campground would increase the traffic flow on the existing road causing some interruptions in its flow.	Construction activities near Little Hole Campground would result in temporary road closures.
4-55	5	Table 4-31	7	(MP 38.1-40.5) N/A	X
4-56	right	last	4	...hard bedrock (MP 27.1 to 29.5 and MP 30.0 to 30.1)	...hard bedrock (MP A27.1 to A29.5 and MP A30.0 to A30.1)
4-57	left	first P	5	...northern portion of this area (MP 31.2 and 32.7)	...northern portion of this area (MP A31.2 and A32.7)
4-58	right	third item	5	...MP 42). It will have up to 5 acre-feet...	...MP A42). It will have up to 5 acre-feet...
4-59	left	1		N/A	Insert new measures:
					<ul style="list-style-type: none"> • to ensure that the people in Brown's Park are notified of any road closures in Jesse Ewing Canyon • to ensure access through Jesse Ewing Canyon during the work day, when possible; for emergencies; and after the work shift each night
		4	5	...losses in the gypsum pond.	...losses in the gypsum pond, if problems develop.
		5	1	N/A	Add: At end of line major access.
	right	2	1-3	to use long spans at right angles to cross rivers and roads which must be unavoidably crossed in high or medium...	to use long spans at right angles, when feasible, where power distribution lines unavoidably cross roads in high or medium...
		3	2	Davis Bottom water pipeline slurry	Davis Bottom water pipeline supply
		8		N/A	Add new measures:
					<ul style="list-style-type: none"> • Pipeline construction in the Rye Grass Draw area should not occur during the May 15 through June 15 period due to significant elk calving in this area (in the vicinity of MP 28), unless approved by the authorizing officer. • Pipeline construction from MP 45 in Red Creek to the Utah/Wyoming border near Richard's Gap should not be allowed during the May 15 through June 15 period because of pronghorn fawning in this area, unless approved by the authorizing officer.

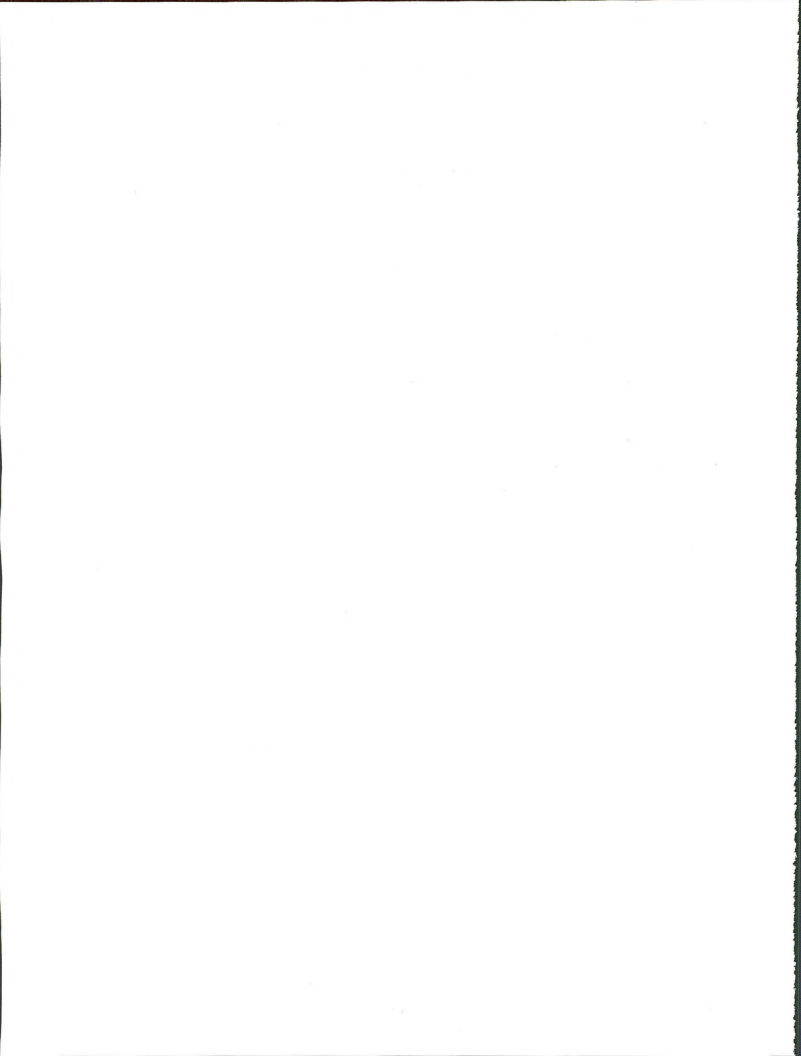
ERRATA SUMMARY

Page	Column	Paragraph	Line	Is	Should Be
					<ul style="list-style-type: none"> Construction of the pipeline in the vicinity of the Frank Myers sage grouse strutting ground (near MP 45) should be delayed until after September 15 because of forage and cover requirements for sage grouse and pronghorn during late spring and summer. Construction could proceed through this area, if approved by the authorizing officer. Building and tower space at Grizzly Ridge will be in accordance with the existing Forest Service Electronic Site Plan.
4-60	left	2		Chevron has agreed to establish a monitoring program in cooperation with the Wyoming Game and Fish Department and BLM for wind-borne fluorides and the potential effects of this element on wildlife, vegetation, and habitats.	It is recommended that Chevron establish a monitoring program, in cooperation with the Wyoming Game and Fish Department and BLM, to detect wind-borne fluorides and the potential effects of this element on wildlife, vegetation, and habitats. Included in this recommendation is baseline monitoring prior to plant construction. This monitoring and research program should follow guidelines in the proposed permit conditions of ISA, Item 24.
4-63	right	2	3	...phosphate slurry between a mine and a processing...	...slurry between a mine and a processing...
4-64	left	4	5	1 mg/l, which represents approximately \$472,000...	1 mg/l, which represents approximately \$513,000...
4-64	right	1		Wildlife: Birds and other wildlife may experience debilitating or lethal effects from the chemicals in the standing water area at the gypsum impoundment.	Birds and other wildlife may experience debilitating or lethal effects from the chemicals in the standing water areas at the gypsum impoundment. The deposition of fluorine on vegetation normally used as food by pronghorn and sage grouse could cause fluorosis, which is a bone disease caused by accumulation of this element in bones of animals ingesting contaminated food. Add: Decker, Dean. 1983. <i>Inspection of Rock Springs District cultural resource files</i> . (Personal communication with L. Burnett, BLM).
R-1	right	8		N/A	Add: _____, January 1983. <i>Rock Springs District Wilderness draft EIS, Red Creek Badlands</i> WSA. Rock Springs District Office, Wyoming. Pages 339-355.
R-4	left	1		N/A	Add: _____, National Park Service. 1982. <i>Final list of Nationwide Rivers Inventory, Phase I</i> . Denver.
			3	N/A	Add: Western Research Corporation. March 15, 1983. <i>Long-term employment and revenue losses</i> . Exhibits 22 through 25: State of Utah Natural Resources and Energy Permit Public Hearing for the Appropriation of Waste Water for the Chevron Phosphate Project Slurry Pipeline, Vernal, Utah. Published for Chevron Resources Company. Laramie, Wyoming.
	right	2		N/A	FLUOSILICIC ACID—H ₂ SIF ₆ —Acid recovered from...
G-1	right	5		FLUOSILICIC ACID—H ₂ SIF ₆ —Acid recovered from...	FLUOSILICIC ACID—H ₂ SIF ₆ —Acid recovered from...
A2-3	left	17		Non-specular conductors, insulators, and hardware shall be used for electric power transmission lines, microwave towers, antennas, and reflectors.	Nonreflective external materials or finishes shall be used for microwave towers, antennas, and reflectors.
A2-6	right	d	2	N/A	Add: <u>external</u> after <u>nonreflective</u>

ERRATA SUMMARY

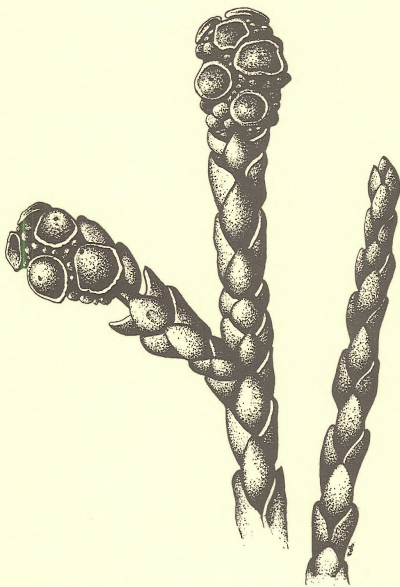
Page	Column	Paragraph	Line	Is	Should Be
A2-6	right	d	4-7	Nonreflective conductor cable and conductor support structures will be used throughout the length of the power transmission line.	Deleted
A2-7	right	b	4	during winter nesting periods)...	during spring nesting periods)...
A2-8	left	h	2-3	...crossing in T.1 N., R.25 E.,...	...crossing in T.2 N., R.25 E.,...
A2-15	left	2	9-10	...stipulations in any federal right-of-way grant that may be issued.	...stipulations in any federal right-of-way grant and/or special-use permit that may be issued.
A2-20	right	item 1	5	recommendations.	recommendations, unless changes are agreed upon by the authorized officer.
A7-3	right	2	9	...to 100 years for conifer aspen trees to reach full...	...to 100 years for conifer and aspen trees to reach full...
A8-1 A8-1		Volume of Water	5,292 ft³		52,921 ft³

Note: P = partial paragraph; N/A = not applicable

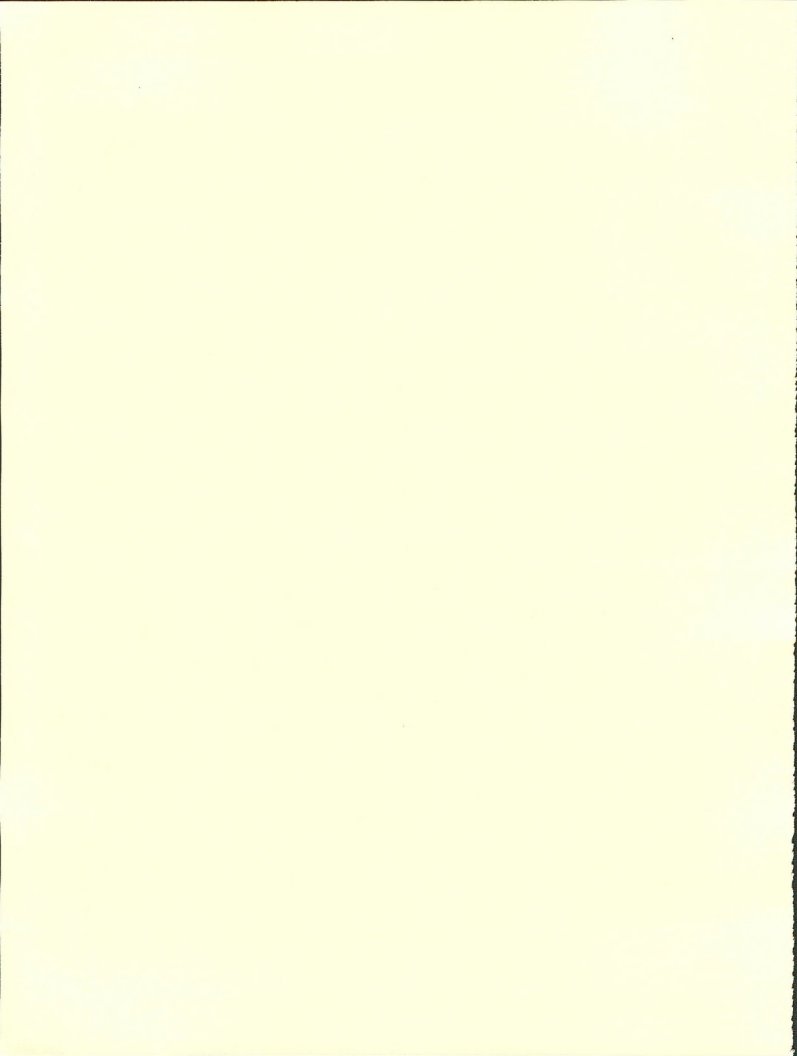


SECTION 5

CONSULTATION AND COORDINATION



ROCKY MOUNTAIN JUNIPER 9X



SECTION 5

CONSULTATION AND COORDINATION

The Bureau of Land Management (BLM) requested and received consultation from many organizations and individuals, public and private, in developing the draft and final environmental impact statement on the proposed Chevron Phosphate Project.

5.1 SCOPING PROCESS

Regulations for implementing the National Environmental Policy Act (40 CFR, Part 1501.7) require an early and open scoping process. During this process, the scope of issues to be analyzed and significant issues related to the proposed action were identified. Information obtained during the scoping process was one of the sources used to determine significant impacts to be addressed in detail in the environmental impact statement (EIS).

Additional purposes of the scoping process were to inform affected federal, state, and local agencies and other interested persons about the proposal, and to identify existing environmental reports and information related to the proposal. Through the scoping process, decision making is enhanced by emphasizing significant issues and reducing the magnitude of paperwork and the length of the statement.

The details of the public scoping meetings held during the initial phases of the environmental impact statement work are summarized in Appendix 1 of the draft EIS.

5.2 DRAFT EIS CONSULTATION AND COORDINATION

The Bureau of Land Management (BLM), in conjunction with the State of Wyoming, Office of Industrial Siting Administration (ISA), was assigned joint-lead responsibility for preparing the environmental impact statement for the proposed phosphate slurry project. The BLM elicited the help of the following federal agencies in the areas indicated:

Bureau of Reclamation — Analysis of the effects of the project to water resources and approval of the water sales contract between the State of Wyoming and Chevron.

Fish and Wildlife Service — Analysis of the effects of the project to aquatic biology and threatened and endangered species.

Forest Service — Analysis of the effects of the project to various resources on land managed by the Forest Service.

Army Corps of Engineers — Consultation on Section 404 permitting process.

The first three agencies were considered to be cooperating agencies and, as such, had individuals assigned to the EIS team. Other team members included BLM personnel and personnel from ISA. Persons from a wide variety of disciplines were assigned to the team to ensure an interdisciplinary approach to preparing the EIS. Their areas of expertise included hydrology, socioeconomic, biology, cultural resources, agriculture, air and water quality, visual resources, geology, wilderness resources. Information about EIS team members is included in the List of Preparers, identified in the draft EIS.

Between July 1982 and January 1983, various unpublished drafts and portions of drafts were distributed for review to federal and state agencies. The EIS was revised based on written review comments and published as the official draft EIS. The draft EIS was released for a 60-day public review on January 12, 1983.

Table 5-1 lists the federal and state agencies, local governments, legislatures, and individuals that were sent copies of the draft EIS and requested to complete a formal review of the document.

5.3 PUBLIC REVIEW OF THE DRAFT EIS

The draft environmental impact statement (INT. DEIS-83-2) was filed with the Environmental Protection Agency on January 12, 1983, and announced in the Federal Register on January 6, 1983 (Vol. 48, No. 4, page 738). In addition, media releases were sent to radio stations and newspapers in the states that would be affected by the proposed action or its alternatives. The releases announced the availability of the draft environmental impact statement (EIS) and locations of the public hearings, described the proposed action, identified key impacts, and requested public comment on the adequacy and accuracy of the statement.

Approximately 1,000 copies of the draft EIS were distributed by mail to various individuals, organizations, and government agencies.

CONSULTATION AND COORDINATION — PUBLIC REVIEW

During the 60-day public comment period (January 12, 1983, to March 15, 1983), BLM conducted two formal public hearings to solicit public comments on the draft EIS (refer to Table 5-2 for locations and other details). The public hearing transcripts have not been reprinted as they are part of the public domain. However, copies of these hearings may be reviewed at the following offices:

State of Wyoming

Office of Industrial Siting Administration
Boyd Building
Suite 500
Cheyenne, Wyoming 82002

TABLE 5-1

AGENCIES, ORGANIZATIONS, AND INDIVIDUALS REQUESTED TO FORMALLY REVIEW THE DRAFT EIS

Federal Government Agencies

Department of the Interior
 *Bureau of Reclamation¹
 *Fish and Wildlife Service¹
 *National Park Service
Department of Agriculture
 *Forest Service¹
 Soil Conservation Service
Advisory Council on Historic Preservation
Department of the Army
 *Army Corps of Engineers¹
*Department of Transportation
 Federal Highway Administration
*Environmental Protection Agency

State Governments and Agencies

*Utah
*Wyoming
 *Office of the Industrial Siting Administration²

Local Governments

Utah
 Uintah County Commission
 Daggett County Commission
Wyoming
 Sweetwater County Commission

State Legislators³

Utah
Wyoming

U.S. Senators and Representatives³

Utah
Wyoming

* Reviewed the draft EIS and provided comments to BLM.

¹ Cooperating agencies

² Joint lead agencies

³ Detailed list available upon request from Richard E. Traylor, Chevron Phosphate Project Leader, 555 Zang Street, 1st Floor East, Lakewood, Colorado 80228

CONSULTATION AND COORDINATION — PUBLIC REVIEW

TABLE 5-2

DRAFT EIS PUBLIC HEARINGS

Hearing/Date	Administrator	Panel	Attendance	Speakers
Dutch John, UT 2/15/83	Ralph Heft, BLM	Traylor—BLM Shark—BLM Meinrod—FS	25	2
Rock Springs, WY 2/16/83	Donald Sweep, BLM	Traylor—BLM Shark—BLM Bierer—BLM Meinrod—FS	32	2

BLM = Bureau of Land Management; FS = Forest Service

Bureau of Land Management

Vernal District Office
P.O. Box F
Vernal, Utah 84078

Rock Springs District Office
P.O. Box 1869
Rock Springs, Wyoming 82901

Division of EIS Services
555 Zang Street
1st Floor East
Lakewood, Colorado 80228

The BLM also received 24 letters addressing the draft EIS during the public comment period. All letters and testimony were assigned a reference number and reviewed. Substantive comments (those that presented new data, questions of new issues bearing directly on the effects of the proposed action and its alternatives) were responded to; where appropriate, draft EIS sections were revised. Table 5-3 lists the reference numbers and identifies

the commenters. All changes have been addressed in this final environmental impact statement. Letters that did not address the adequacy of the draft environmental impact statement were not responded to, but appear in Part 5.5 of this section.

5.4 COMMENTS AND RESPONSES

As discussed in Part 5.3, each comment letter was assigned a reference number. Individual substantive comments within each letter were then identified and responded to. All comment letters have been reprinted verbatim except for their respective attachments. The responses which immediately follow each letter are identified by the reference numbers which appear on the comment letter.

The comment responses either explain that the EIS text has been revised to incorporate the change recommended by the commenter or explain why a text change was not appropriate. Letters that contained no substantive comments are reprinted (Part 5.5), but not responded to.

TABLE 5-3
LETTERS WITH SUBSTANTIVE COMMENTS

Reference Number	Source of Letter
2	Department of Transportation, Washington, D.C. (federal agency)
3	Division of State History, Salt Lake City (state agency)
4	Pacific Power and Light Company, Casper, WY (business)
6	Geological Survey, Reston, VA (federal agency)
7	Department of Health, Salt Lake City (state agency)
8	Department of the Army, Sacramento, CA (federal agency)
9	Wyoming Executive Department, Cheyenne, WY (state government) Department of Environmental Quality Office of Industrial Siting Administration State Engineer's Office Wyoming Recreation Commission Game and Fish Department Mark Junge Oil and Gas Conservation Commission Wyoming State Highway Department
10	National Park Service, Denver (federal agency)
11	Lenora M. Smith, Maybell, CO (citizen)
12	Fish and Wildlife Service, Salt Lake City (federal agency)
13	Chevron Chemical Company, Rock Springs, WY (applicant)
14	Bureau of Mines, Denver (federal agency)
15	Department of Health and Human Services, Atlanta, GA (federal agency)
16	Mid-America Pipeline Company, Tulsa, OK (business)
17	William and Lucille Fleming, Maybell, CO (citizens)
18	Bureau of Reclamation, Salt Lake City (federal agency)
19	State of Colorado, Department of Local Affairs, Denver (state agency) Division of Wildlife Department of Social Services Air Pollution Control Division
20	State of Utah, Office of the Governor, Salt Lake City (state agency)
21	Environmental Protection Agency, Denver (federal agency)
22	Forest Service, Ashley National Forest, UT (federal agency)
23	Game and Fish Department, Cheyenne, WY (state agency)
24	Sierra Club, Salt Lake City (organization)

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Public Hearing Comment — Rock Springs,
Wyoming — February 16, 1983

Witness — Wells Williams, City Planner, City of
Green River

Comment:

Mr. Williams expressed concern regarding the impact to recreational users from construction of the proposed water intake structures along the Green River. He requested that although this had been addressed in the draft EIS, perhaps additional factors could be considered additionally and addressed in the final EIS.

Response:

Effects upon the quality of river running experiences due to the proposed pump house and associated water intake structures were addressed on page 4-31 of the draft EIS. The paragraph has also been modified to include potential impacts on the quality of hiking experiences in the Davis Bottom area. (Refer to Section 4, Errata Summary.)

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 2



U.S. Department
of Transportation

Research and
Special Programs
Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

FEB 3 1983

RECEIVED

FEB 7 1983

Mr. Richard E. Traylor
Project Leader
Division of EIS Services
Bureau of Land Management
First Floor East
555 Zang Street
Denver, Colorado 80228

EIS OFFICE

Dear Mr. Traylor:

Thank you for forwarding the copy of the Draft Environmental Impact Statement (EIS), "Chevron Phosphate Project," January 1983.

Table 1-1 on page 1-5 lists the Research and Special Programs Administration (RSPA) as the agency regulating the safe construction and operation of pipelines. Under current statutes and 49 CFR Part 195, RSPA would not regulate the proposed phosphate/water slurry pipeline. This correction should be made in the final EIS.

Sincerely,

A handwritten signature in cursive script, appearing to read "Richard L. Beam".

Richard L. Beam
Associate Director for
Pipeline Safety Regulation
Materials Transportation Bureau

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Response to Comment Letter 2

- 2.1 Thank you for this information. The text has been revised to reflect this comment. Refer to Section 4, Errata Summary, for correction.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 3



SCOTT M. MATHERSON
GOVERNOR



STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

February 1, 1983

Division of
State History
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR
307 WEST 2ND SOUTH
SALT LAKE CITY, UTAH 84101
TELEPHONE 601/533-5755

Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, Colorado 80228

RE: Chevron Phosphate Project, Draft EIS, Multi County, Utah

Dear Mr. Traylor:

The Utah Preservation Office has received for consideration a copy of the draft environmental impact statement for the Chevron Phosphate Project, written by the Bureau of Land Management. After consideration of the material enclosed, our office is aware of the fact that complete cultural resources surveys have not been completed of the Utah portions of the pipeline and facilities. The Bureau of Land Management indicates that these surveys will be carried out by the company involved at appropriate planning stages.

Of general comment, it should be noted that the historical information on pages 3-26 and 3-41 is extremely limited, even for a draft environmental impact statement, and some consideration should be given to strengthening these two sections.

Our office may be of some assistance in adding to those histories in the Utah area, and any questions or need for information concerning the archeological surveys, our office is also willing to assist with.

The above is provided on request as information or assistance. We make no regulatory requirement, since that responsibility rests with the federal agency official. However, if you have questions or need additional assistance, please let us know. Contact Jim Dykman at 533-7039.

Sincerely,

Melvin T. Smith
Director and
State Historic Preservation Officer

JLD:jr:F787/5492c

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Response to Comment Letter 3

- 3.1 The history section was abbreviated for the EIS. This was considered necessary in the interest of keeping the document concise and within the page limitations. It is felt that additional discussion was not necessary to assess the potential impacts.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 4

PACIFIC POWER & LIGHT COMPANY

BOX 720
CASPER, WYOMING
82602

BRUCE G. BEAUDOIN
VICE PRESIDENT
AND
WYOMING DIVISION MANAGER

TELEPHONE 307-235-0425

February 10, 1983

Mr. Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, Colorado 80228

Gentlemen:

Pacific Power & Light Company has reviewed the Draft Environmental Impact Statement on the Chevron Phosphate Project dated January 1983.

- 4.1 The term, "Power Transmission Lines" used throughout this report should be changed to read, "Power Distribution Lines". Pacific Power & Light Company does not propose to construct any transmission lines to serve this project. Any power line to be constructed to serve the plant, the water pumping station or the pipe line booster station is by the Federal Energy Regulatory Commission definition a part of the distribution system. This definition is shown in the FPC Uniform System of Accounts, Page 101-15 (copy enclosed). Also, the FLPMA regulations, sub part 2805, refers to the fact that lines 66 kV and above, because of their use to transmit wholesale power, must be approved by power marketing of the Department of Energy. 34.5 kV and lower voltage lines are used to deliver power directly to retail power customers. 34.5 kV power lines proposed to serve the Chevron complex will be accounted for as distribution lines and will be used to serve not only Chevron's loads, but any others that may require service presently or in the future. Distribution power lines generally use 35-40', single wood poles, while transmission lines generally use two-pole, H-frame structures, the poles being from 60-90' in height. All of the lines planned to be constructed for the Chevron project will be wood single pole structures with a nominal height of 35' above ground. We believe that all reference to power transmission lines associated with this project should be changed to power distribution lines.

It should be noted that Pacific Power & Light Company will obtain all rights of way and permits for the facilities to be constructed to serve this project. The Wyoming Public Service Commission has jurisdiction over location and construction of our facilities and by law it is necessary for Pacific to make an application to them before constructing the substations. The Commission will also address the environmental aspects of these facilities. Rather than address individual items in the report, we make the following comments on four subjects referred to in various portions of the report:

- 4.2 1. **Visual Impact.** Reference is made in various parts of the report regarding the visual impact of the power lines. It should be noted that the existing 230 kV line already is a visual impact.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Mr. Richard E. Traylor

- 2 -

February 10, 1983

4.2
(Cont.)

The addition of a distribution line within the site of this transmission line should not significantly affect the present visual impact, since the proposed lines would be of single pole construction and the distribution conductors would be at a lower elevation than the transmission conductors.

4.3

2. Road Crossings Using Long Spans. The report refers to the need to use long spans for crossing highways and roads. The length of spans crossing highways are usually limited by the agency or entity with the authority to grant crossing permits. Limitations on crossing span lengths are based on safety to persons using these highways and roads. Crossings are constructed in accordance with the National Electrical Safety Code and we cannot violate this code.

4.4

3. Non-Specular Conductors. The report requires the use of non-specular conductors, insulators and hardware. This conductor was developed by the Reynolds Metal Company for high voltage transmission lines where the size and height of supporting structures and the size and number of conductors (sometimes multiple conductors per phase) could be unusually visible in some areas while the conductors were new and at their most reflective state. Distribution lines usually are constructed with fewer and smaller conductors installed at much lower elevations above ground level. Within a few years, standard aluminum conductors will oxidize to a less reflective condition similar to the non-specular conductors. Non-specular conductors are not in standard use on distribution lines and their required use would result in much higher costs with questionable benefits to the Public.

It should be noted that "non-specular" (even when written without capitals) is a Reynolds Metals Company trademark.

4.5

4. Undergrounding. The report includes the requirement to underground power lines in certain areas.

It should be noted that the Forest Service itself chose to have an overhead power line crossing made of the Flaming Gorge Reservoir a few years ago due to the extremely high cost of undergrounding.

It should be recognized that the requirement to underground certain portions of the proposed 34.5 kV line will result in additional costs to the customer being served, and eventually to all PP&L customers in Wyoming. These additional costs for underground construction become particularly significant when serving industrial loads such as the Chevron Plant and pump stations.

Maintenance difficulties and reliability of underground will be of concern throughout the life of the installation. While underground lines are protected from most of the adverse weather conditions

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Mr. Richard E. Traylor

- 3 -

February 10, 1983

which are one of the major sources of outages on overhead lines, when a failure does occur on an underground line it is difficult to locate and repair, frequently resulting in extensive outages. This is a particular problem when such failures occur in remote areas experiencing severe winter weather conditions where accumulations of ice and snow can make trouble locating and repairs extremely difficult. Of additional concern is a rodent population in prairie areas which can cause damage to buried cables.

4.6

In some locations, underground construction can cause more environmental damage than just visual impact. The installation of buried cables in previously undisturbed earth along slopes and sidehills can be the source of soil erosion. In addition, damage to the root systems of trees and other vegetation along a cable route can have additional impact on the environment.

In some instances an underground installation can have a more adverse effect on the environment than the appearance of an overhead line.

Again, it needs to be pointed out that Pacific Power & Light Company has not done any specific routing and surveying of power lines or substation locations at this point in time. If and when the Chevron project becomes certain, Pacific's engineers will review the routing and location of our facilities in the field with Bureau of Land Management and Forest Service people. It will also be necessary for Pacific at that time to review the proposed facility locations with the Public Service Commission. After specific routes and locations are chosen, the necessary applications for right of way and Public Service Commission approval will be made by Pacific.

4.7

We do question the need to have the power facilities addressed or included in the Environmental Impact Statement for this project. It must be realized that any facilities constructed by Pacific will not be dedicated to the sole use of the Chevron project. As previously noted, the facilities that Pacific constructs will be available for providing power to present and future customers in the area. Since these will not be dedicated facilities to serve this project, it seems realistic to address power facility installations on an individual application basis as we have done in the past.

Thank you for the opportunity to comment on this impact statement.

Sincerely yours,


Bruce G. Beaudoin

BGB/ac

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 4

- 4.1 Thank you for this information. The text has been revised to reflect this comment. Refer to Section 4, Errata Summary, for correction.
- 4.2 The visual resource analysis recognized the existing 230-kV distribution line as an existing visual impact, and its presence is noted in various sections in Chapter 3 of the draft EIS, where the affected visual resource is discussed. The existing transmission line detracts from the visual resource of the local area. However, the proposed distribution lines would detract further from the landscape quality, since additional areas would be disturbed and over a greater area, as viewed from U.S. Highway 191. The single pole construction and height of the conductor would still be visually in contrast to the existing landscape features.
- 4.3 All comments related to using long spans when distribution lines cross roads are well taken. However, the intent of the measure is to take advantage of the natural terrain features and other siting conditions, where possible, within the limits of codes and other restrictions, to lessen the visual impacts from power lines to highway users.
- 4.4 BLM's general and resource measures (Appendix A-2 of the draft EIS) required use of non-specular and non-reflective components for power distribution lines and communication facilities. Further research indicates that your statements are applicable to the situation addressed in the document pertaining to distribution lines. Therefore, the measures requiring non-specular or non-reflective distribution line components (no transmission lines will be constructed) have been rewritten to reflect this comment. Refer to the Errata Summary for revisions.
- 4.5 The fact that the Forest Service has used other options in the past does not directly affect the analyses contained in this EIS. We worked very closely with the Forest Service in developing the EIS and analyzing potential impacts and mitigation. They stated that burying the line within the NRA would be required.

It is true that Chevron will have to pay for this mitigation measure. We are unable to determine whether these costs will be reimbursed by all Pacific Power and Light (PP&L) customers in Wyoming. This comment seems to imply that

some customers subsidize others, which is out of our scope of analysis. However, the entire distribution line to the plant would not necessarily have to be buried; only the last portion extending to the water pump station.

Maintenance difficulties and reliability are always concerns. In this case, Chevron may want to take extra precautions to protect the line. However, such extra protection will not change the impacts as stated in the draft EIS.

- 4.6 The effects to soil and vegetation caused by installation of underground cables associated with the Chevron project are considered to be short term and minimal: (1) land disturbance would be minimal due to the small trench, causing a limited amount of soil alteration and root disturbance; (2) the root systems for the vegetation types involved are expected to recover readily; (3) a large share of the buried cable installation would be associated with other proposed or existing linear facilities; and (4) effective erosion control and revegetation measures would be implemented to ensure erosion control and revegetation.
- 4.7 Both the National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) regulations require that all aspects of a project be analyzed for its potential impacts. The power facilities analyzed in the EIS would be required for implementation of the Chevron project and, therefore, need to be analyzed. Even though some of the facilities may serve other users, the Chevron project would be the initiating action. As stated on page 1-14, Section 1.2, of the draft EIS, a right-of-way application will be required from PP&L. These applications will be reviewed for conformance with the impacts analyzed in this EIS and, depending on their location, could require supplemental environmental analysis.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 6



United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VA. 22092

In Reply Refer To:
EGS-Mail Stop 423

MAR 01 1983

Memorandum

To: Chevron Phosphate Project Leader, Bureau of Land Management
Denver, Colorado

From: Assistant Director for Engineering Geology

Subject: Review of draft environmental statement for Chevron Phosphate
Project, Sweetwater County, Wyoming; Uintah and Daggett Counties,
Utah

We have reviewed the draft statement as requested in the notice from the
State Director.

- 6.1 Plans for trenching (e.g., p. 1-30, 1-31, A2-17) should include providing permeability barriers at appropriate locations to prevent movement of pollutants or excessive seepage along the axis of the backfilled pipeline trenches to ground-water sources or streams.
- 6.2 The phosphate slurry pipeline will require 1,290 acre-feet of water per year, which is to come from the existing tailings pond at the Vernal phosphate mine (p. 1-29). It is stated that the use of this tailings-water source would not be different from that which presently exists; therefore, no further discussion is needed in the statement (p. 1-29). However, we note that at the phosphate plant some of this wastewater would be used to reduce water demand for process circuits (p. 1-29, A2-22). The statement should address the treatment, if any, and eventual discharge or disposal of all of the slurry water, after it has reached the phosphate plant.
- 6.3 The statement should at least summarize pertinent information on ground-water resources in the affected areas and assess the potential for impacts from the project on aquifers beneath or downslope from the plant or pipelines.
- 6.4 The Davis Bottom Plant Process Water Pipeline and Rock Creek Canyon Phosphate Slurry Pipeline would cross many dry washes and intermittent drainages (p. 4-6). We suggest that measures should be considered to ensure the structural integrity of pipelines where they may be affected by peak flows resulting from high-intensity storms.

James F. Devine
James F. Devine

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 6

- 6.1 The chances for excessive seepage occurring, which would move pollutants along the pipeline, are very remote due to the desert conditions (about 10 inches precipitation per year) and the lack of pollutants in the area. However, should the authorizing officer feel that such measures are necessary, they may be required.
- 6.2 Treatment of tailings pond water for use in the process will not be necessary. In addition to this, disposal is through the gypsum pond to the atmosphere by way of evaporation. However, if the plant (which is non-discharging) should eventually require discharge water, the water will have to meet the requirements of quality in effect at that time.
- 6.3 Ground water in the project area is not an issue for the following reason: Along the pipeline, if ground water would be encountered, it would be of local occurrence and seasonal. The pipeline would simply be an inert object occupying space. Information regarding ground water was not summarized because this resource would not be affected by implementation of any component of the project.
- 6.4 Such measures are very much on the minds of the applicant's design engineers. Increased wall thickness, concrete-coated pipe, and the appropriate use of bedding materials are discussed by the applicant in their technical report. Furthermore, reclamation procedures that ensure stable channels will also ensure a protected pipeline.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 7

Scott M. Matheson
Governor



James O. Mason, M.D., Dr.P.H.
Executive Director
801-533-6111

DIVISIONS

Community Health Services
Environmental Health
Family Health Services
Health Care Financing

OFFICES

Administrative Services
Community Health Nursing
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Medical Examiner
State Health Laboratory

STATE OF UTAH
DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110-2500

Mary H. Maxwell, Ph.D., Acting Director
Room 474 801-533-6121

March 3, 1983

Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, Colorado 80228

Re: DEIS for Chevron Phosphate Project

Dear Mr. Traylor:

We have reviewed the above referenced project and have the following comments to make.

7.1

Water Pollution Control

Adequate provision of pipeline rupture spill control at the mine and along the slurry line right-of-way should be required. Although the EIS addresses the impact to the Green River if a rupture occurs, the Green River has adequate flow to dilute such a spill to somewhat reduce the impact. However, smaller streams such as Brush Creek could be severely impacted if a spill or rupture occurred in their drainage. The possibility of these spills should have been addressed and provisions, such as catch basins and diversions, should be provided in the pipeline design as it crosses these smaller, more sensitive waterways.

7.2

Public Water Supplies

The proposed project construction should not have a direct impact on any existing public water supply facilities; however, it should be realized that the Total Dissolved Solids (TDS) concentration in the Green River could be increased by a maximum of 20 mg/l.

Sincerely,


Dennis R. Dalley
Assistant Director

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 7

7.1 A spill in the Green River was discussed, because there are several water interests in this stream: water supply, recreation, and aquatic resources. As such, it was considered to be a worst-case situation.

A spill in Brush Creek, or any other creek, could not harm the recreation or aquatic resources; however, it may affect the water quality—with inert sediment. The design of catch basins or diversions in conjunction with the pipeline is unrealistic. The placement of these structures is not possible because there is no way to predict where or if a spill will occur. The probability of a spill is low.

7.2 We are not sure what the 20 mg/l figure represents. Does this figure apply to the applicant's water use, cumulative water use, or other parameters? Also, background conditions (flow and TDS level) for this 20 mg/l figure have not been identified for an accurate and realistic discussion of TDS concentrations (see pages 4-5 through 4-8 of the draft EIS).

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 8



DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
650 CAPITOL MALL
SACRAMENTO, CALIFORNIA 95814

REPLY TO
ATTENTION OF

March 2, 1983

Regulatory Section

Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, 1st Floor East
Denver, Colorado 80228

Dear Mr. Traylor:

We are responding to your letter that was sent to the Office of the Chief of Engineers requesting comments on the Draft Environmental Impact Statement for the Chevron Phosphate project.

Accordingly, we offer the following comments for you to consider in preparing the final EIS.

1. The proposed project would not conflict with any flood control or navigation projects, or plans of the Sacramento District.

2. As noted on Pages 1-3 and 1-5, a Department of the Army permit will be required for stream crossings and water diversion facilities if dredged or fill material is placed in waters of the United States, or if work is conducted in Flaming Gorge Reservoir.

3. The pipeline crossing of waterways may qualify for a nationwide permit. An information sheet for the appropriate nationwide permit is enclosed.

8.1

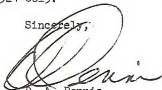
4. Many of the impacts to waters of the United States have been discussed in the Draft EIS. If, however, there are impacts that were not covered, they should be included in the final EIS. We are especially interested in impacts involving the discharge of dredged or fill material into waterways and wetlands.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

-2-

For information concerning Department of the Army permits please contact Mr. Tom Skordal of our Salt Lake City Office, 8402 Federal Building, 125 South State Street, Salt Lake City, Utah 84138, telephone (801) 524-6015.

Sincerely,



D. A. Dennis
Chief, Construction-Operations
Division

Enclosure

Copy Furnished:

C.D.R. U.S.A.C.E., (DAEN-CWP-V), Washington, D.C. 20314
without Enclosure



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Response to Comment Letter 8

- 8.1 All impacts to the waters of the United States from implementation of this proposal have been addressed in the draft EIS. The impacts from dredging and filling the Green River, due to the pipeline crossing, are discussed in Section 4.2.1 of the draft EIS. A similar discussion will be sent to your office with the Section 404 permit application when construction actually occurs.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 9



WYOMING
EXECUTIVE DEPARTMENT
CHEYENNE

March 7, 1983

ED HERSCHLER
GOVERNOR

Mr. Richard E. Traylor
Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, CO 80228

Dear Mr. Traylor:

Several state agencies have reviewed the draft environmental statement for the proposed Chevron Phosphate Project. Their comments are enclosed for your review and consideration.

9.1

It appears that disposition of the process water and resulting effluents is the major concern of most of the agencies that reviewed the DEIS. However, I believe that the disposal issue will be taken care of when Chevron commences construction of the project. Close monitoring of leachates from the gypsum pond will probably be necessary. The Bureau should check with the Industrial Siting Administration's permit for further details.

On a related matter, it appears that this joint effort at an EIS and an Industrial Siting permit worked well despite some early problems. It would seem appropriate that the Bureau's Division of EIS Services provide a critique of how this joint effort could be improved. I am, by copy of this letter, requesting the same of the Industrial Siting Administration.

I look forward to seeing your critique in the near future.

Yours sincerely,
Ed Herschler

BH/wwt

cc: Maxwell T. Lieurance
Richard Moore

Enclosure

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

THE STATE



OF WYOMING

ED HERSCHLER
GOVERNOR

Department of Environmental Quality

LAND QUALITY DIVISION

401 WEST 19TH STREET

TELEPHONE 307-777-7756

CHEYENNE, WYOMING 82002

MEMORANDUM

TO: Robert E. Sundin, Director DEQ

FROM: Walter C. Ackerman, Administrator LQD *WCA*

DATE: January 25, 1983

SUBJECT: Comments on DES for the Chevron Phosphate Plant Project

The staff has previously reviewed this project for the Office of Industrial Siting. Our detailed comments on the Industrial Siting application were submitted to Mr. Moore in a letter memo dated September 14, 1982. For consideration of this statement, following are the areas of concern that we believe should be fully evaluated while processing this document.

- 9.2 1. Phosphate in sediments is geochemically similar to a number of potentially hazardous ions and is commonly associated with them. These include vanadium and uranium. Associated cations can include lithium and cobalt. The end result is that phosphate industries historically have potential radiological hazards. A pre-construction baseline radiological assessment of the area is recommended and a commitment to post-reclamation radiological levels that do not exceed pre-construction levels, with associated mitigation measures is advised.
2. An allied request is for multiple element and radiological analyses of the ore that will be sent to the plant. This would be useful in assessing where potentially radioactive wastes may end up so that mitigative measures can be planned.
- 9.3 3. The site has only an order 3 soils survey. An order 3 soil survey is used for general planning on a broad scale. Soils within the boundaries of planned disturbance should be sampled and described on site in order to evaluate material suitable for stripping for reclamation. For example, the Firehole soil as measured over the entire area surveyed by Wells and Knox had an electrical conductivity range of 4 to 8 umhos/cm. The high end of that range will support only salt tolerant plants. Additionally, there is insufficient information on many chemical and physical characteristics of the soil important to plant growth such as SAR, Se, B and particle size analysis. To facilitate reclamation, all suitable topsoil should be stripped from all areas to be affected. The vegetation should not be separately stripped from the topsoil, unless it is trees.
- 9.4 4. Successful reclamation of the gypsum and other residue will probably require several feet of suitable plant growth medium.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Memorandum
January 25, 1983
Page Two

9.5

5. Although Chevron has stated the tailings impoundment will be "constructed to minimize seepage in accordance with appropriate state agency regulations," significant leakage is inevitable from a pond of this size. The combination of very low pH water in the tailings pond and poor quality water from blowdown in the ammonium phosphate cooling tower will lead to high concentrations of heavy metals in seepage emanating from the pond. The low hydraulic conductivity in the Blair Formation and natural upward flow of groundwater in bedrock will prevent seepage from entering the bedrock. As a result, most of the seepage that does occur will flow downstream (along Sweetwater Creek) in the alluvium.

It is very likely that a contaminated plume, caused by tailings pond seepage will rapidly move through the alluvium of Sweetwater Creek toward Rock Springs and Bitter Creek. Whether the seepage would ever have an effect on the Green River is debatable, but the potential certainly exists. The alluvium and alluvial water in Sweetwater Creek downstream of the tailings pond and in Bitter Creek will undoubtedly be adversely affected. Springs on Sweetwater Creek (Section 20) will also be adversely impacted.

Seepage from the tailings pond could cause an increase in discharge of springs located on the upper reaches of Sweetwater Creek immediately downstream of the tailings pond. Most likely, the springs would discharge water much lower in overall quality than presently occurs.

9.6

The possibility of release of radionuclides from the phosphate rock should be investigated. If radionuclides are released, the movement of a contaminant plume from the tailings pond becomes an even more important concern.

WCA:GB:kv

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES



ED HERSCHLER
GOVERNOR

Office of Industrial Siting Administration

SUITE 800

BOYD BUILDING

CHEYENNE, WYOMING 82002

TELEPHONE: 307-777-7368

February 24, 1983

Dick Hartman
State Planning Coordinator
Wyoming State Clearinghouse
2320 Capitol Avenue
Cheyenne, WY 82002

RE: Chevron Phosphate Project - Draft Environmental Impact Statement,
SIN 83-104

Dear Dick:

The Industrial Siting Administration staff has the following comments on the Chevron Phosphate Project DEIS:

1. Since the DEIS focuses mainly on the impacts of linear facilities, readers should refer to the ISA Staff Review to learn more about the plant complex site.
2. It should be emphasized that many different agencies and at least one contractor were involved in the writing of different sections of the DEIS. The ISA staff wrote the following sections:
 - 1.1 Introduction
 - 1.1.2 Authorizing Actions
 - 1.1.4 Interrelationships
 - 1.2 History and Background
 - 1.3 Overview of Proposed Action and Alternatives
 - 1.4 Proposed Action
 - 1.4.1 Construction, Operation, Maintenance, Abandonment
 - 1.4.2 Components
 - 3.1.7 Land Use Plans (Impact Area of Influence)
 - 3.2.7 " (Proposed Action)
 - 3.3.7 " (Middle Firehole Alternative)
 - 3.4.7 " (Jensen Slurry Water Alternative)
 - 3.5.7 " (Phosphate Slurry Pipeline Alternative)
 - 4.2.7 " (Proposed Action)
 - 4.2.14 Health & Safety

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Dick Hartman
Page 2
February 24, 1983

The following sections were written by the Air Quality Division of the Wyoming Department of Environmental Quality at the request of the Industrial Siting Administration:

- 3.1.4 Air Quality (Impact Area of Influence)
- 3.2.4 Air Quality (Proposed Action)
- 4.1.4 Air Quality (Significance Criteria)
- 4.2.4 Air Quality (Proposed Action)

Mountain West Research Incorporated wrote the following sections under a contract with the Industrial Siting Administration:

- 3.1.2 Socioeconomics (Impact Area of Influence)
- 3.1.3 Transportation Networks (Impact Area of Influence)
- 3.2.2 Socioeconomics (Proposed Action)
- 3.2.3 Transportation Networks (Proposed Action)
- 3.5.1 Transportation Networks (Phosphate Slurry Pipeline Alternatives)
- 4.1.2 Socioeconomics (Significance Criteria)
- 4.1.3 Transportation Networks (Significance Criteria)
- 4.2.2 Socioeconomics (Proposed Action)
- 4.2.3 Transportation Networks (Proposed Action)
- 4.9.2 Transportation Networks (Unavoidable Adverse Impacts)

- 9.7 | 3. Table 1-2 Major State Authorizing Actions should include a permit to mine from the Wyoming DEQ Land Quality Division for the mining of clay to be used in the gypsum impoundment construction.
- 9.8 | 4. Section 1.5 Plant Process Water Pipeline Alternative
Besides the proposed action (i.e., Davis Bottom Plant Process Water Pipeline), only the Middle Firehole Plant Process Water Pipeline Alternative was evaluated. Both of these intake structure locations and pipeline routings would affect the visually sensitive Flaming Gorge National Recreation Area and either could result in adverse impacts to wildlife, recreation, sensitive soils, and reclamation potential. No alternatives outside the NRA have been examined, though it appears feasible that the intake structure and pipeline could be located north of the NRA near Interstate-80. Additionally, if the intake structure was to be located at Davis Bottom, placement of the structure on the west bank rather than the east bank would eliminate several concerns. The final EIS should evaluate alternative intake structure locations and pipeline routings outside of the National Recreation Area and should evaluate the alternative of locating the intake structure on the west bank at Davis Bottom.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Dick Hartman
Page 3
February 24, 1983

5. Sections 1.5, 1.6, and 1.7 Middle Firehole, Jensen, and Big Sandy Water Supply Alternatives
Each of these alternatives should be identified by a third order numeral and listed under a second order numeral entitled "Water Supply Alternatives." This would be consistent with the format used in Section 1.8 Phosphate Slurry Pipeline Alternatives.
- 9.9 | 6. Section 2.2.3 Phosphate Slurry Pipeline Alternatives
In Table 2.5, Phosphate Slurry Pipeline Comparative Analysis, concentrations are listed as mg/l under water resources but what parameter these concentrations refer to is not indicated.
- 9.10 | 7. Section 3.2.1 Water Resources
a. This section does not mention any groundwater resources, particularly the groundwater resources that would be affected by seepage from the gypsum impoundment and drawdown from the water well.
- 9.11 | b. This section lacks the specificity needed for an understanding of the individual water resources affected by the project. For example, at least two tributaries of Red Creek that are to be crossed by the slurry pipeline are perennial streams but are not described. Neither are Bitter and Little Bitter Creeks. The relationship of these resources to one another should be described as should their chemical, physical, and biological characteristics.
- 9.12 | 8. Section 3.2.5 Wildlife
a. Section 4.2.5 identifies potential impacts to waterfowl utilizing the proposed gypsum impoundment. However, there is no mention in Section 3.2.5 of waterfowl species that inhabit the area. Table 3-12, which lists selected species affected by the proposed action, should identify common waterfowl in the area. It is inconsistent to identify impacts on a resource (Chapter 4) without first identifying the resource (Chapter 3).
- 9.13 | b. The description of existing fish habitat in the affected area is inadequate. Several of the streams crossed by the slurry pipeline have existing populations of fish. Although most of these are not game fish, they should, nevertheless, be described in this section. Furthermore, Red Creek contains a population of Colorado River cutthroat trout, listed as rare by the Wyoming Game and Fish Department. This population is not mentioned anywhere in the DEIS. Although this population exists upstream from the Red Creek crossing, it could, nevertheless, be affected by disturbances in upstream tributaries which are crossed by the pipeline.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Dick Hartman
Page 4
February 24, 1983

9. Section 4.2.5 Wildlife
- 9.14 a. The Zitney study does not provide conclusive evidence respecting the effects of external contact of gypsum impoundment wastewater on waterfowl. We strongly disagree that the Zitney study of rabbits can provide conclusive evidence that other mammals will not drink from the gypsum impoundment or will not be affected by the ingested wastewater. Even for rabbits, the evidence is inconclusive.
- 9.15 b. This section largely ignores the effects on fish populations. For example, effects of impingement and entrainment in the water intake structure at Davis Bottom are not addressed. The effects of sediment on fish populations in streams and in the Green River are not adequately addressed. The input of sediment from construction may not be dissipated prior to the onset of brown trout spawning. Until reclamation is complete and vegetation reestablished, an increased sediment load in surface waters can be expected. In the summary at the end of this section, Colorado squaw fish and humpback chub are mentioned but no prior mention is found in the text.
- 9.16 10. Section 3.2.5 and 4.2.5 Wildlife
Reference to "raptor concentration areas" is relatively meaningless. What raptors and at what densities? If species and numbers are not known for these concentration areas or if surveys of the areas must still be conducted, then the EIS should so indicate.
- 9.17 11. Section 4.2.1 Water Resources
a. The effects of construction of the Davis Bottom intake structure on water quality in the Green River are not described. The construction of this facility will cause impacts on water quality in the Green River. Only the effects of operation on water quantity are described in this section.
- 9.18 b. This section describes the potential for sediment loading in the Green River as a result of construction of the slurry pipeline. The effects of this loading should be explained. The effects of sediments on tributaries of the Green River, specifically Red Creek, should also be described.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Dick Hartman
Page 5
February 24, 1983

- 9.19 | c. The effects of potential leachate from the gypsum pond have been ignored. A worst case scenario of leachate from the gypsum pond reaching the Green River should be presented in this section.
12. Section 4.2.11 Soils and Vegetation
9.20 | The effects of emissions from the plant complex on vegetation communities has not been adequately addressed. An attempt should be made to quantitate the effects of these emissions.
13. Section 4.8.1 Mitigation and Appendix 2
9.21 | a. The final EIS should reflect any relevant socioeconomic and environmental mitigating measures that Chevron will be required to implement as conditions to the Industrial Siting Permit, a copy of which has been sent to the BLM.
- 9.22 | b. The designs of any check dams, horizontal drains, and sediment traps proposed for construction in the Red Creek Basin should be thoroughly reviewed to make sure that construction of the structures does not create more sediment and sloughing problems than it is intended to prevent.
- 9.23 | c. The fourth mitigation item on p. 4-58 should explain the meaning of "human size rock."
- 9.24 | d. Since the Forest Service has also required that power transmission lines in the NRA must be buried (p. A2-8 item 6.), items 11 and 12 on p. 4-59 should say that power transmission lines will be buried from MP 14 (or 17) to the pumphouse. Also, the item discussing the Davis Bottom water pipeline system should have the word "slurry" removed.
- 9.25 | e. Subsection A2.2.5 Revegetation
To take advantage of winter and spring moisture, seeding should be done between October 15 and April 15, but not when the ground is frozen. When broadcast seeding, the seed rate should be doubled. Grazing or mowing should be delayed at least two years after seeding.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Dick Hartman
Page 6
February 24, 1983

9.26

- f. Subsection A2.3.4 Abandonment
Recent commitments from Chevron state that topsoil to be used for reclamation of the gypsum impoundment will be taken from the impoundment disturbance itself prior to construction rather than from adjacent areas at the time of reclamation.

Sincerely,



Richard C. Moore, P.E.
Director

RCM/1h

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

THE STATE



OF WYOMING

ED HERSCHLER
GOVERNOR

State Engineer's Office

BARRETT BUILDING

CHEYENNE, WYOMING 82002

February 24, 1983

MEMORANDUM

FEB 28 1983

TO: Dick Hartman, State Planning Coordinator

FROM: Louis E. Allen, Water Resources Engineer *lea*

SUBJECT: State Identifier No. 83-104, Chevron Phosphate
Plant Project Draft EIS, BLM.

I offer the following comments on the water-related portions of the subject Draft EIS:

- 9.27 1. Summary, page S-5, Agency Preferred Alternative. As worded, the parenthetical expression implies that all of the plant water supply might come from the Big Sandy Unit. Only a portion of the supply can be accepted from the Big Sandy by Chevron, and the balance will still be taken from a Green River diversion.
- 9.28 2. Page 1-6, Table 1-2, first entry. The first citation under "Authority" apparently pertains to the Republican River Compact. The Republican River is not a tributary of the Colorado River system, and that compact would have no bearing on either of the Colorado River compacts. The Upper Colorado River Basin Compact would not need to be modified, and Colorado could not do so unilaterally in any event. Further, there is no reason to amend the Consent of Congress to the Upper Colorado River Basin Compact (63 Stat. 31).
- 9.29 3. Page 1-9, Table 1-2 (Continued). The Wyoming Water Development Commission is not a permitting agency, although they are involved in the Big Sandy Unit salinity reduction efforts.
- 9.30 4. Page 1-34, last paragraph. Why would the Colorado River Compact (or the Upper Colorado River Basin Compact) require modification? An agreement between Wyoming, Colorado, and Utah in order to convey water through to the Jensen diversion may be prudent, but the compacts allow diversion in one state for use in another. The 3-4 cfs flow increment involved would hardly be detectable in the normal flow of the Green River. There would not be an appropriation of water in Colorado.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Dick Hartman
February 24, 1983
Page 2

9.31

5. Page 1-35, last paragraph of 1.7. The proposed reservoir that is referred to would not supply an additional 20,800 acre-feet of water per year. The yield of the system, wells plus reservoir, would be on the order of 20,000 to 22,000 acre-feet per year. However, the site for the proposed reservoir appears to be impractical at this time due to foundation conditions. Should a satisfactory alternative site be located, it is possible that a reservoir could be constructed in the future to supplement the yield from the collector wells. For this DEIS, it would probably be best to delete the paragraph.

9.32

6. Pages 4-5 to 4-8, 4.2.1, Water Resources. The discussion under Plant Complex (pp 4-5, 4-6) and Summary (p. 4-8) runs counter to the Colorado River Compact and the Upper Colorado River Basin Compact. These compacts are predicated on the depletion of flow by the signatory States for beneficial uses. The States recognize the salinity impacts from such depletions, are working among themselves, and are actively cooperating with Federal agencies to reduce salt loading to the river system.

9.33

7. Appendix 8, pages A8-1, A8-2. The calculation results appear to be generally correct, but the mathematical notation leading to most of these results leaves much to be desired. There is an error in "volume of water" on page A8-1, which is possibly a typo. It should be 52,921 cu ft.

Thank you for the opportunity to comment on this Draft EIS. Your referral memorandum is being returned as requested.

LEA/ht

cc: George L. Christopoulos
State Engineer

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

WYOMING RECREATION COMMISSION

1920 THOMES

JAN L. WILSON
Director
777-7695

CHEYENNE, WYOMING 82002

January 28, 1983

Mr. Dick Hartman
State Planning Coordinator
2320 Capital Ave.
Cheyenne, WY 82002

RE: 82-104

Dear Mr. Hartman:

The Draft Environmental Impact Statement for the Chevron Phosphate Project was received in this office January 24, 1983. Thank you for giving us the opportunity to review the statement.

9.34

The major concern of the Wyoming Recreation Commission (WRC) would be the possible impacts on the existing and potential recreation lands in southwestern Sweetwater County. The WRC recommends that protective measures be implemented for the lands with high recreation value. A listing of sites with high recreation potential identified in a recent lands inventory is included for your review.

Flaming Gorge National Recreation Area and the surrounding lands offer valuable recreation opportunities to the state and nation. Consequently, it seems appropriate that any impacts to the recreational resource from this proposed project should be avoided.

If you have any questions concerning this recommendation, please contact this office.

Sincerely,

Alvin F. Bastron

Alvin F. Bastron, P.E.
Acting Director

AFB/GT/lr

Encl.

RICK KILMER PRESIDENT P.O. Box 91 Lusk 82528	CHARLES H. JOHNSON VICE PRESIDENT 821 Asher Rawlins 82301	E. LAWSON SCHWOPF TREASURER 900 Foye Avenue Cheyenne 82001	ALBERT PILCH 1600 Marie Lee Evanston 82930	DAN MADIA 1017 Victoria Sheridan 82501	MRS. ROBERT FRISBY 2007 Stewart Avenue Cody 82414	FLOYD BARTLING P.O. Box 172 Douglas 82033	JACK D. DEMOND P.O. Box 216 Therm 82127	LARRY BIRLEPP 829 E. Apache Cheyenne 82001
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CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

POTENTIAL RECREATION LANDS

SWEETWATER COUNTY

T	R	Section	Acres	Site Name	Ownership
18N	107W	6	640	Green River	Private
19N	108W	36	550	Green River	State
19N	108W	25	640	Green River	Private
19N	108W	23	640	Green River	Private
19N	108W	22	640	Green River	State
19N	108W	15	640	Green River	Private
19N	108W	9	640	Green River	Private
19N	108W	5	640	Green River	Private
19N	108W	6	640	Green River	Federal
17N	106W	27	640	Little Firehole Canyon	Private
17N	106W	28	640	Little Firehole Canyon	Federal
17N	106W	34	640	Little Firehole Canyon	Federal
17N	106W	29	640	Little Firehole Canyon	Private
16N	106W	28	640	Firehole Canyon	Federal
16N	106W	21	640	Firehole Canyon	Private
16N	106W	20	640	Firehole Canyon	Federal
16N	106N	19	640	Firehole Canyon	Private
13N	106W	25	640	Little Mountain	Federal
13N	106W	26	640	Little Mountain	Federal
13N	106W	23	640	Little Mountain	Federal
13N	106W	24	640	Little Mountain	Federal
12N	105W	15	640	Richards Mountain	Federal
12N	105W	22	580	Richards Gap	Federal

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES



ED HERSCHLER
GOVERNOR

Game and Fish Department

CHEYENNE, WYOMING 82002

W. DONALD DEXTER
DIRECTOR

January 27, 1983

EIS 1044/L3 Draft EIS
SPC SIN 83-104
BLM 1792 (D-490)
WISA-82-2 Staff Review
Chevron Phosphate Project
Sweetwater County

Mr. Dick Hartman
State Planning Coordinator
2320 Capitol Avenue
Cheyenne, Wyoming 82002

Dear Mr. Hartman:

We have reviewed the Draft Environmental Impact Statement for this proposed project and have the following comments:

- 9.35
1. As noted in Section 4.2.5, human population increase will impact wildlife law enforcement in the area. However, no commitment is noted in Appendix 2 to mitigate this impact. Chevron should be required to develop and implement a mitigation program to address this impact.
- 9.36
2. According to the Wyoming Industrial Siting Administration Staff Review of this project, Chevron has committed to providing an environmental awareness training program for its employees. Nowhere in Appendix 2 is this commitment noted.
3. The Davis Bottom process water supply pipeline alternative is preferred over the Middle Firehole alternative. This alternative is significantly less destructive of wildlife habitat, as shown in Table 2-3, Page 2-2, 2-3. Further, if the water intake structure were located on the west side of the Green River, habitat loss associated with access road improvement could be further reduced. The water pipeline could parallel the existing MAPCO pipeline, further reducing cumulative impacts.
4. Of the phosphate slurry pipeline alternatives noted in Section 2.2.3; the Northwest alternative appears the least damaging to wildlife habitat. Our Department is opposed to industrial development on critical wildlife habitat, unless adequate mitigation can be demonstrated.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Mr. Dick Hartman
January 27, 1983
Page 2, EIS 1044/L3

- 9.37 5. As noted in Section A2.2.5, Chevron proposes to use non-endemic plant species in reclamation. Impacts to wildlife associated with this project will be increased unless some commitment to restoring wildlife habitat is made. Reclaiming wildlife habitat with non-endemic species is unacceptable.
- 9.38 6. Only slight commitment is made, in Appendix 2, to mitigate the effects of this project on sage grouse, despite the fact that 14 breeding complexes may be affected. Chevron should commit to:
- a. Route pipelines and other ancillary facilities around grouse leks;
 - b. Restrict vegetation disturbance within and adjacent to breeding complexes to minimum necessary;
 - c. Not employ vegetal control within or adjacent to rights-of-way near breeding complexes;
 - d. Revegetate only with endemic plant species, including shrubs, within or adjacent to breeding complexes.
- 9.39 7. We recommend that mitigation plans for raptors affected by the project be coordinated with the U. S. Fish and Wildlife Service and our Department.

Additional comments will be furnished upon review by our Fish Division personnel. Please contact us if we may be of further help.

Sincerely,



FRANCIS PETERA,
ASSISTANT DIRECTOR, OPERATIONS
WYOMING GAME AND FISH DEPARTMENT

FP:HBM:mlr

cc: Fish Division
cc: Game Division
cc: Industrial Siting Admin.
WISA-82-2

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Mark Junge, Chief

Richard Bryant, Compliance Archeologist

January 19, 1983 (district #3)

DEIS--Chevron Phosphate Plant

The DEIS indicates that appropriate mitigation measures to protect cultural resource sites in the project area will be undertaken. Our staff routinely works with the BLM and the Industrial Siting Commission to develop mitigation measures for significant sites. I can make no specific comments on how the project will affect cultural sites until the project area has been surveyed and the sites located. As long as standard survey and mitigation procedures are followed, I have no objections to the project.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

CHAIRMAN
GOVERNOR ED HERSCHLER

COMMISSIONERS
OSCAR E. SWAN
BERN WHITTAKER
RICHARD S. CROSS

GARY B. GLASS

The State of Wyoming

OFFICE OF
OIL AND GAS CONSERVATION COMMISSION
STATE OIL AND GAS SUPERVISOR

123 SOUTH DURBIN

P. O. BOX 2840

CASPER

82502

STATE OIL AND GAS SUPERVISOR
DONALD B. BASKO

EX OFFICIO DIRECTOR OF
OIL AND GAS CONSERVATION

JAN 28 1983

January 27, 1983

Dick Hartman
State Planning Coordinator
Office of the Governor
State Capitol Building
Cheyenne, WY 82002

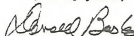
Re: Chevron Phosphate Plant Project,
Draft EIS, 83-104

Dear Mr. Hartman:

With respect to the above-noted Draft EIS, my only comment is that this project will utilize 1,000 tons of sulphur per day which is being produced from the Whitney Canyon-Carter Creek complex in western Wyoming.

It is my understanding that the sulphur market in general is difficult and it may be a problem for Chevron Oil Company to find a market for their sulphur if this plant should not be approved and go forward. There is also the advantage of using Wyoming produced sulphur in a Wyoming plant that produces a Wyoming product.

Very truly yours,



Donald B. Basko,
State Oil and Gas Supervisor

DBB:wai

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

THE STATE



OF WYOMING

Ed Herschler, Governor
Lena Menghini, Superintendent and Chief Engineer

Wyoming State Highway Department

P. O. BOX 1708

CHEYENNE, WYOMING 82002-9019

January 25, 1983

EIS Review
Chevron Phosphate Plant
State ID 83-104

Mr. Dick Hartman
State Planning Coordinator
Wyoming State Clearinghouse
2320 Capitol Avenue
Cheyenne, WY 82002

Dear Mr. Hartman:

The comments that we made concerning Chevron's application for an Industrial Siting Permit have been adequately addressed in the Draft EIS. Consequently, we have no further comments. We are, however, enclosing a copy of our Industrial Siting Permit comments for your information.

Very truly yours,

A handwritten signature in cursive script, reading "William P. King".

William P. King, P. E.
Environmental Services Engineer

WPK/mg

Enclosure

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

August 19, 1982

Chevron Phosphate Project
Docket No. WISA 82-2


Mr. Richard C. Moore, Director
Industrial Siting Administration
Suite 500, Boyd Building
1720 Carey Avenue
Cheyenne, WY 82002

Dear Mr. Moore:

We have reviewed the subject application and offer the following comments:

1. Chevron, we feel, has correctly analyzed the impacts of the phosphate plant on state highways in and around Rock Springs. With the mitigation measures set forth (dispersed housing, intersection design, bussing if needed), we see little impact on state highways.
2. Highway 430 passes through the project area with plant facilities on each side. Access approaches will be required as well as pipeline and powerline crossings; and the Wyoming Highway Department must approve and license these encroachments. Chevron has consulted our District Engineer in Rock Springs who must approve these encroachments, and is developing encroachment designs in accordance with his instructions.
3. With these actions, we see no reason to deny Chevron's permit on transportation grounds.

Very truly yours,


William P. King, P. E.
Environmental Services Engineer

WPK/mg

cc: A. V. DeBernardi, District Engineer
Rock Springs

Dick Hartman
State Planning Coordinator
Cheyenne

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 9

9.1 Items 15 and 16 of the Office of Industrial Siting Administration's (ISA) "Permit Conditions to Mitigate Environmental and Socioeconomic Impacts" adequately address this possibility. Please refer to Appendix 1 of this EIS for the ISA stipulations.

9.2 The constituents of the gypsum waste are identified in the draft EIS, pages 1-44 and 1-45. The measures proposed by Chevron and the required measure by ISA will eliminate the hazard.

The overall health and safety of construction and operation workers at the fertilizer plant would be protected through the rules and regulations of the Occupational Safety and Health Administration. The general public would not be exposed to possible on-site hazards due to complete fencing of the plant facilities. See Section 4.2.14 of the draft EIS for a discussion of health and safety.

ISA requirement, Item 18, Appendix 1, addresses baseline surveys and monitoring.

9.3 Measures proposed by Chevron, and permit condition, Item 17, Appendix 1 address this concern. The type of land disturbance caused by the Chevron project would not warrant a highly detailed soil survey or extensive soil investigation and analysis program. Other than the gypsum impoundment, the land disturbance would be associated with linear facilities and the building site. Topsoil and favorable plant growth material, including grass and shrub vegetation, will be stripped from the immediate facility site and used in the reclamation process. Stripping surface soils outside of the immediate facility site for source of topsoil should be avoided to keep land disturbance to a minimum.

The basic chemical and physical soils information and vegetation cover inventories available are adequate to determine suitable plant growth material, select adopted plant species, and to make effective reclamation recommendations.

The range of 4 to 8 umhos/cm electrical conductivity of extract is a normal soil map unit range, and within soil series and phase criteria. According to the National Soil Handbook, conductivity of 0 to 4 umhos/cm is considered non-saline and 4 to 8 umhos/cm is identified as slightly saline.

Additional soil investigations or analysis, when needed, can be provided by the on-site reclamation specialist.

9.4 Successful reclamation of the gypsum impoundment area will require a minimum 24-inch cover of suitable plant growth material; depths of 40 inches would be most effective. This is based on studies associated with spent shale disposal area reclamation and on the amount of average annual precipitation in relationship to the depth of moisture penetration.

Measures proposed by Chevron and ISA permit conditions (Items 8, 9, 10, 17, and 20) address this concern.

9.5 Measures proposed by Chevron and ISA (permit conditions, Items 15 and 16, Appendix 1) address this concern. At the time Chevron completes the work identified in these permit conditions, a more realistic estimate of seepage and potential plumes will be available. A similar situation exists for heavy metals and radionuclides.

9.7 We agree with your comment. Refer to Section 4, Errata Summary, for revision.

9.8 A new alternative north of Davis Bottom and south of Interstate 80 has been evaluated for the final EIS. Refer to Section 3 of this volume.

9.9 The mg/l referred to suspended sediment. See Section 4.2.1, Water Resources, Red Creek Canyon Phosphate Slurry Pipeline, in the draft EIS, for a complete discussion. (Table has been corrected and is identified in Section 2, Comparative Analysis.)

9.10 Please refer to responses to Comments 9.5 and 9.6.

9.11 The water resources section in the draft EIS discusses those water resource components that can logically be expected to be affected by the applicant's proposal (Green River and the Red Creek Watershed). All tributaries of Red Creek crossed in the Red Creek Watershed could expect to respond as stated in Chapter 4, pages 4-6 and 4-7 of the draft EIS. A similar situation exists for the Bitter Creeks. Only those aspects that would be affected are required to be described. Therefore, these aspects were not described (in accordance with the CEQ regulations) since they would not be significantly affected.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

9.12 Table 3-12 (page 3-19 of the draft EIS) has been modified to include various species of waterfowl under the section on birds. Refer to the Errata Summary for revision.

9.13 Only significant impacts are analyzed in the EIS. Impacts to aquatic organisms downstream of pipeline crossings are not anticipated to be significant. The population of Colorado River cutthroat trout in Red Creek occurs upstream some distance from the pipeline crossing. The Wyoming Game and Fish Department did not express any concern about adverse impacts to this species from implementation of this project.

9.14 CEQ regulation 1503.3(b) requires that a commenter describe the alternative methodology which it prefers and the reasons for its preference. In addition, we know of no other studies or evidence which refute the Zitney study. Until other evidence is presented, we have an obligation to support the cited results of the Zitney report.

9.15 The design of the intake structure in the Green River at Davis Bottom precludes any impingement (refer to Figure 1-3 on page 1-25 and the right-hand column, last paragraph, page 3-17, of the draft EIS); therefore, no impacts are anticipated.

Impacts from increased sediment in the Green River are discussed on page 4-26, left-hand column, last partial paragraph, of the draft EIS. Refer also to the discussion in Section 4.2.1 (Water Resources), pages 4-6 and 4-7. The calculated increase in sediment to the Green River of 4 percent would be within the normal deviations expected from "normal" sediment loads. This amount of increase is not anticipated to adversely affect the Green River fishery.

The Colorado squawfish and humpback chub are endangered species and are listed in Table 3-12 of the draft EIS.

9.16 Map overlays furnished by the Wyoming Game and Fish Department did not indicate specific raptor species and nesting sites in this area. However, the Game and Fish Department did identify the project area using the term "raptor concentration area". Surveys for raptor nests should be undertaken prior to pipeline construction so that harassment of nesting raptors can be avoided during the critical period.

9.17 Construction at Davis Bottom or any of the other potential intake structure sites would only

disturb the bed and banks of the headwaters of the reservoir. Due to this, sediment could be temporarily resuspended; however, the addition of new sediment to the system would be unlikely. Any change in water quality would be very short term, unquantifiable, and insignificant.

9.18 Please refer to pages 4-6 and 4-7 and companion section on Wildlife and Recreation, pages 4-26 and 4-31, respectively, of the draft EIS. These pages discuss sediment impacts to the subject streams.

9.19 Please refer to responses to Comments 9.5 and 9.6.

9.20 Based on the research and information available, the analysis and discussion presented reflects the best quantification of effects caused by emissions from the plant complex on soils and vegetation.

Refer to the ISA "Permit Conditions to Mitigate Environmental and Socioeconomic Impacts", Item 24, Appendix 1, of this EIS. A monitoring program will be developed and implemented to isolate and analyze downwind impacts of emissions on soils, vegetative cover, and productivity.

(Also, refer to response to Comment 12.1.)

9.21 A copy of the ISA stipulations has been incorporated into this final, per your suggestion. Please refer to Appendix 1 of this EIS.

9.22 This statement has been supported as the role of the authorizing officers for the BLM, FS, and Corps of Engineers as identified in the appropriate sections (by Agency) in Appendix 2 of the draft EIS.

9.23 Human size rock is a rock that can comfortably be lifted, fitted, or placed by an individual; a rock weighing about 100 pounds.

9.24 Item 6, page A2-8, of the draft EIS, requires that all power lines within the National Recreation Area (NRA) be buried. This is a Required General Federal Measure. Items 11 and 12, page 4-59, of the draft EIS are mitigation measures, which will be required as a condition of any right-of-way permit issued by BLM.

Assuming adherence to the mitigation and the required measure, the power line would be buried from milepost (MP) 14 to 16.4 (pump

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

house) for the Davis Bottom water line, and from MP 17 to 20.4 (pump house) for the Middle Firehole water line.

The word "slurry" should be *supply*, and has been changed as identified in the Errata Summary.

9.25 As stated in Section A2.2.5, Revegetation (Reseeding and Planting) of the draft EIS

- Seeding will be done when seasonal or weather conditions are most favorable and as determined by landowner or authorized officer. Every effort would be made to take advantage of winter and spring moisture.
- Seeding rates in critical area planting (which include broad cast types of seeding) and generally throughout the right-of-way will be increased 100 percent over regular seeding rates in order to compensate for seed mortality from adverse growing conditions.
- Delaying grazing or mowing for at least one growing season after seeding has proven to allow for establishment of seedlings under normal climatic conditions. Delaying grazing for longer periods of time where possible is more beneficial and provides for more effective establishment. In critical and heavy use areas or for periods of adverse climatic conditions, delaying grazing or protective fencing may be necessary.

9.26 Utilizing topsoil and favorable plant growth material stripped from within the gypsum impoundment area prior to operation for use in the reclamation process upon abandonment is an effective procedure. This reduces additional land disturbance for topsoil materials at the time of reclamation.

9.27 Please refer to Section 1, Summary; the Agency-Preferred Alternative has been revised.

9.28 The authority column has been modified to state the potential need for an agreement between Colorado, Wyoming, and Utah. Refer to the Errata Summary for correction.

9.29 The Wyoming Water Development Commission has been deleted per your comment. Please refer to the Errata Summary for correction.

9.30 Agree; text revision has been identified in the Errata Summary.

9.31 It is our decision that the section remain as written for the following reasons: (1) discussion involves a proposed project still in its early planning stage; (2) without the reservoir discussion, water supply figures would not be accurate.

9.32 We fail to see how the analysis of impact of salinity runs counter to the compact. The increase of salinity is an impact which has to be discussed. Based upon the formula supplied by the Bureau of Reclamation and the previous studies done by this office with the Colorado River Simulation System, salinity at Imperial Dam would increase due to the upstream depletions.

9.33 Refer to the Errata Summary, Section 4, in this EIS for correction. Figure should read 52,921 ft³.

9.34 According to the CEQ regulations for preparing EISs (1501.7 Scope), significant issues and concerns are to be addressed. Impacts regarding these recreation resources and effects upon the quality of user experiences have been identified, including those impacts to the Flaming Gorge NRA and user experiences, rafters and canoeists on the Green River, the Little Hole Area, etc. (refer to Recreation Resources Significance Criteria, page 4-4 of the draft EIS). Several "protective measures" (General Measures) have been identified in Appendix 2 of the draft EIS (refer to BLM, Visual Resources, page A2-6; BLM, Wildlife, pages A2-7 and A2-8; FS, Wildlife, page A2-11; and FS, Recreation, page A2-12 in particular).

9.35 The ISA permit conditions, Items 1 and 2, Appendix 1, include a mitigation program which addresses the potential poaching problem. BLM could not find any published data on poaching increases around construction areas, thus the straight-line projection.

9.36 It is true that Chevron has agreed to the program. ISA's permit condition, Item 2 (Appendix 1), issued after the EIS was published, requires this.

9.37 Comment inaccurate; Chevron has not identified the use of non-endemic plants. However, introduced species may be considered for specific conditions when approved by the landowner and regulatory authority. (Refer to response for comment 12.22.) Chevron has agreed to revegetate as identified in Appendix 2,

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

pages A2-11 and A2-19, respectively, of the draft EIS. Furthermore, ISA Permit Condition, Item 9, Appendix 1, states that non-endemic plant species will not be used unless approved by the ISA and the Wyoming Game and Fish Department.

- 9.38 The required measures in Item F on page A2-8, of the draft EIS, stipulating no occupancy or surface disturbance within 2 miles of a lek (sage grouse breeding complex) during the critical March 1 through June 30 period and the permit conditions from ISA (Appendix 1 of this EIS) noted in Item 12 of the permit conditions document, should provide adequate protection for sage grouse.

Chevron has agreed to revegetate disturbed land areas following the required measures and reclamation procedures outlined in Section A2.2.5 Revegetation (Reseeding and Planting) of the draft EIS. Only species adapted to local soil and climatic conditions will be used; generally, these would be native species. However, introduced species may be considered for specific conditions when approved by the landowner and regulatory authority.

- 9.39 Mitigation plans for raptors and coordinated discussions with the U.S. Fish and Wildlife Service and the Wyoming Game and Fish Department personnel are noted in Item I3 of the ISA permit conditions document (Appendix 1) and in Items B and E on page A2-7 and Item G on page A2-8 of the draft EIS.



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 10



United States Department of the Interior

NATIONAL PARK SERVICE
ROCKY MOUNTAIN REGIONAL OFFICE
655 Parfet Street
P.O. Box 23287
Denver, Colorado 80225

IN REPLY REFER TO:

L7619 (RMR-PC)

MAR 10 1983

Memorandum

To: Mr. Richard Traylor, Project Leader, Bureau of Land Management,
Division of EIS Services, Denver, Colorado

From: Associate Regional Director, Planning and Resource Preservation,
Rocky Mountain Region

Subject: Review of draft environmental impact statement (EIS) for
Chevron Phosphate Project (DES-83/2)

The National Park Service has reviewed the subject document and has the following comments.

- 10.1 Page 4-6 states that cumulative demands on Green River water could decrease the river's flow as much as 4 percent as measured at the inflow to Lake Powell, and states that this could be a significant change. Page 4-8 reiterates this potential. However, pages 4-31 and -32 discuss the diminished quality of recreational river running only from the visual aspects of facilities. We believe there should be a tie-in made to the effect that reduced flows would have on this recreational experience, particularly in Dinosaur National Monument and Canyonlands National Park. This discussion on recreation also should address the "worst-case" aspect of the annual reduction of 22,500 acre-feet at Fontenelle Reservoir, 1/10 of its active capacity, and what impact there would be for boat-ramps, access to the water and visual impacts of mud flats.
- 10.2 Additionally, the cumulative effects on river-running could have economic effects on concessioners who rent rafts and operate river rafting trips. We suggest that Section 4.2.2 Socioeconomics address this impact. The cumulative effect of reduced flow into Lake Powell might also have some minor consequences on timing and use of concession marina facilities on the lake.
- 10.3 Chapter 3, Section 4.3 (Affected Environment-Jensen Water Supply Alternative-Recreation Resources), should describe the Green River from Range Creek to the Yampa River as a stream listed in the Nationwide Rivers Inventory. This segment was listed in the Inventory because of its outstandingly remarkable scenic, recreational, geologic, fish, and wildlife values. The adverse effects of the proposed project on the outstandingly remarkable values of the Green River between Range Creek and the Yampa River should be discussed in Chapter 4, Section 4.5. Additional information on the Inventory stream segment and its values is available from this office.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

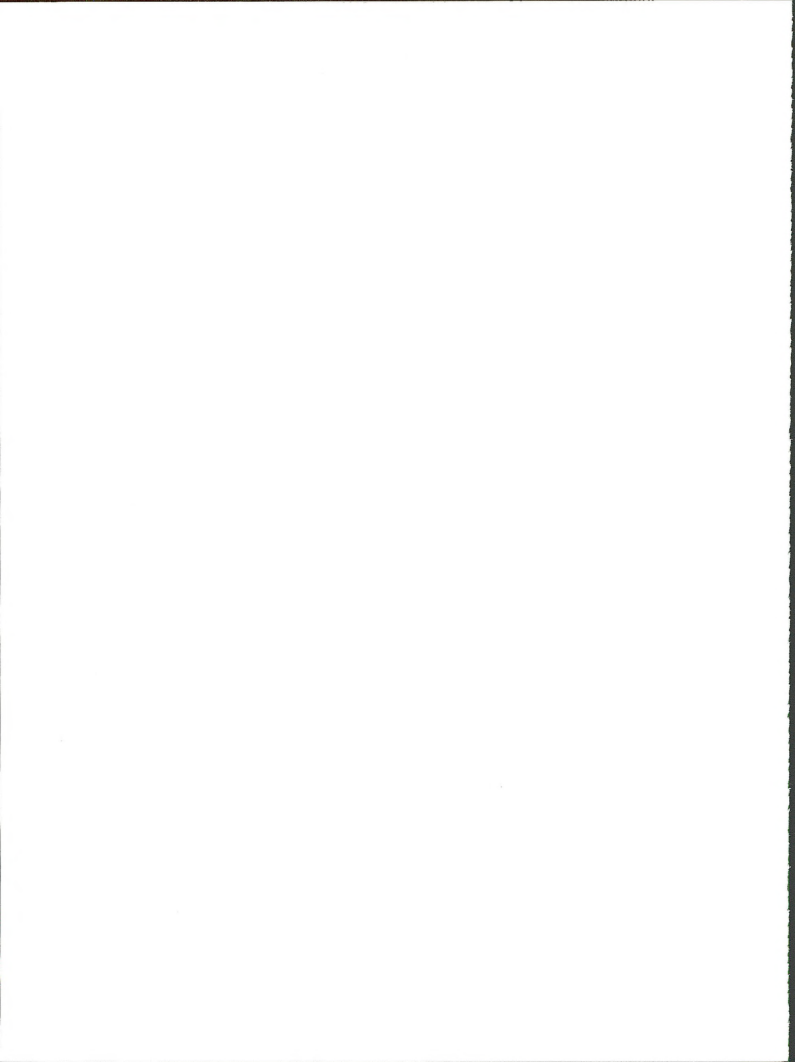
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10.4

We view the Jensen water supply alternative as having the greatest potential for adverse impact on endangered fishes in Dinosaur National Monument and would rather not see that alternative adopted. In this regard, page 4-47, Section 4.4.3 identifies the Green River in the Jensen area as a significant spawning and nursery area for Colorado squawfish. To our knowledge the Jensen area is not a spawning area for this fish and we suggest the statement be checked with the U.S. Fish and Wildlife Service.



Richard A. Strait



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 10

- 10.1 The minor decrease in the flow rate of the Green River and predicted reduction of capacity at the Fontinelle Reservoir will have no noticeable, adverse effects on recreation resources, or the quality of recreational user experiences. No significant impacts are anticipated on the quality of river running experiences, fishing quality, adverse economic effects on concessioners, boat ramps, water access, or visual impacts on mud flats. The reduced water flow would, nonetheless, cause an increase in salinity of the Green River. Any incremental increase in the salinity of the Colorado River System is considered significant from a water resources perspective. However, this minimal decrease in flow would not represent a significant impact upon recreation resources, or the quality of water user experiences.
- 10.2
- 10.3 Agree; text revisions have been made in the recreation resources sections for the Jensen Slurry Water Supply Alternative for Chapters 3 and 4. Refer to the Errata Summary for revisions.
- 10.4 This statement, referred to on page 4-47, is a direct quote from a memorandum to BLM from the U.S. Fish and Wildlife Service, dated September 17, 1982.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 11

To: Bureau of Land Management
Attn: Richard E. Traylor

March 11

From: Mr. and Mrs. C. Smith
Grouse Park Utah Route
Maybell, Colorado 81640

Date: 7 March 1983

Subject: Comments on Draft E.I.S. - Ekovon Phosphate Project

We are permanent residents on Taylor Flats, Grouse Park, Daguerre County, Utah.

We have reviewed the subject draft. Our comments concern the route of the pipeline. We feel that the line should parallel the existing Mapes line as this would provide the least impact on vegetation, wildlife and would not scar any more land.

11.1

Along with this opinion, however, is the concern of access to hospital facilities in Rock Springs Wyoming for an emergency should occur during the construction period. According to the statement, Jesse Living Canyon will be widened to fifty feet and therefore a narrow access route could be maintained during construction. Our concern is valid as during the Mapes line construction an employee was seriously injured and had to be flown out by helicopter because the roadway was not kept open after each blasting episode.

We hope our comments will be given serious consideration.

Sincerely,
Lenora M. Smith

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Response to Comment Letter 11

- 11.1 Thank you for your comment; a mitigation measure has been added and is noted in the Errata Summary.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 12



United States Department of the Interior

FISH AND WILDLIFE SERVICE
AREA OFFICE COLORADO-UTAH
1311 FEDERAL BUILDING
125 SOUTH STATE STREET
SALT LAKE CITY, UTAH 84138

IN REPLY REFER TO: (ES)

March 9, 1983

MEMORANDUM

TO: Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, Colorado 80228

FROM: Field Supervisor
Ecological Services

SUBJECT: Comments on Chevron Phosphate Project Draft Environmental
Impact Statement (ER 83/3)

We have reviewed the Chevron Phosphate Project DEIS and find that it adequately addresses the potential impacts to fish and wildlife resources and their habitats for the most part.

12.1

One area of analysis we believe needs more work is the problem of fluoride emissions. There may be two issues here contributing to the weakness of identifying the problem and addressing it. One may be an underlying jurisdictional dispute between permitting the emission (State of Wyoming) and then secondly, assessing the environmental impacts of an otherwise permissible emission (BLM). The two issues are separate and distinct. The standards in effect may be within limits for permitting the emissions by the Wyoming Department of Environmental Quality, however, the amount of fluoride emitted, albeit within permissible limits, may cause environmental damage and should be assessed. If an assessment concludes the environmental costs to society are great enough, mitigation measures should be stipulated.

We are not experts on fluoride emission problems but have recently learned a few things we believe are worthy of consideration in an assessment. Fluorine is the most active element in the halogen group and readily combines with other elements when released into the environment. Plants take up fluorides primarily through the stomata but they may also be assimilated through the root system. Plants seem to self regulate against picking up higher than normal amounts through the root system regardless of the amount of fluorides in the soil. Further evidence indicates some plants are more sensitive to fluorides than others, while other species may accumulate high fluoride levels (alfalfa) while not being particularly sensitive to it. Desert type plants may be less sensitive to fluorides than other types.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Page 2

- 12.2 | Fluorides readily contribute to fluorosis in wildlife and livestock, which is a debilitating affliction, if not deadly. Animal intake may come from eating plant parts or residue which has accumulated fluorides (alfalfa) or by eating forage with airborne fluoride deposits on them. In the vicinity of Rock Springs where precipitation is low and the vegetation is infrequently washed, accumulations would be expected to be high and large amounts could be ingested. Evergreen sagebrush is a major food item of antelope, deer, sage grouse and sheep in this area and it would provide a greater area on the leaf surfaces for fluorides to accumulate, further compounding the problem.

We believe the potential exists for greater environmental damage from fluoride emissions than has been addressed in the DEIS. If environmental consequences cannot be assessed at this time, we believe a monitoring system should be in place to evaluate the effects of fluoride emissions before project start up, with the understanding that if environmental problems emerge, remedial action will be taken by retrofitting the plant to reduce fluoride emissions to a compatible level.

We are providing references (attached) relating to the fluoride toxicity to wildlife and livestock and its association with industrial development that just arrived in our office. You may want to consider them for a further assessment of the fluoride problem. These references are only some of those that are available on fluoride emissions and the problem of fluorosis.

There is a problem in the DEIS between the summary section and the text. We have pointed out several of those discrepancies in the specific comments.

Specific Comments

- 12.3 | Page 5-3, Wildlife, paragraph 1, line 5. It should be noted that whitetail prairie dog colonies may also have black-footed ferrets. These endangered mammals have been reported in Sweetwater County and, without an adequate survey, their presence cannot be discounted. (See our memorandum of September 19, 1982).
- 12.4 | Page 5-3, Wildlife, paragraph 2, line 9. Delete bonytañ chub. These endangered fish are believed extirpated in the Colorado River system above Lee's Ferry. (See our memorandum of September 17, 1982).
- 12.5 | Page 5-3, Wildlife, paragraph 2, lines 6 to 13. These lines contain two major errors and need correcting. Error 1: The pipeline crossing does not cross the Green River in occupied habitat of the endangered fishes. There would be no impacts to endangered fishes because of trenching. Error 2: The water intake for the Jensen alternative is in high use spawning habitat of the endangered Colorado squawfish and could significantly impact that endangered fish. (See our memorandum of September 17, 1982).

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Page 3

- 12.6 Page 1-28, paragraph 3, lines 20-22, states, "If soil conditions permit, various grasses can be seeded" We recommend BLM and FS require a balanced mix of native plants, approximating the natural composition destroyed to be used to restore vegetative cover. Usually if no stipulations are required, exotic crested wheat grass will be reseeded. Crested wheat grass's value to wildlife and livestock is much less than an appropriate mix of native plants best suited to the soil, elevation, and slope aspect of the disturbed site.
- 12.7 Page 3-1, Wildlife, paragraph 3, lines 2-4, states, "... unusable by wildlife because of isolation, noise, dust and similar factors. This list of indirect effects should also include reduced forage caused by acid mists (emissions). We suggest adding reduced forage."
- 12.8 Page 3-2, 3.1.10 Soils and Vegetation. We believe acid mists (emissions) from the plant would reduce vegetation production.
- 12.9 Page 3-5, Table 3-2, Category Agriculture. This table shows an increase of 11 percent in agriculture employment between 1980 and 1984 in Uintah County. This appears to be a rather large percentage increase in four years in contrast to the general downward trend prevalent in agriculture employment. What is the reason for this?
- 12.10 Page 3-21, Railroad Spur (beginning on page 3-20), lines 6-8 states, "... miles of a raptor concentration area" This statement should read, "... raptor nesting concentration area"
- 12.11 Page 3-25, Table 3-15. Was the repeated, Boats (weekend use) and Boats (weekend use) supposed to be Boats (weekend use) and Boats (weekday use)?
- 12.12 Page 3-36, 3.4.1 Wildlife, lines 11-12, delete entire sentence "in addition ... the humpback chub." The humpback chub does not occur here.
- 12.13 Page 4-6, 4.2.1 Water Resources, paragraph 2, lines 8-9 states, "... salinity at Imperial Dam is \$472,000 annually" The figure has now been determined to be \$513,000 per mg/l according to the Bureau of Reclamation.
- 12.14 Page 4-19, 4.2.4 Air Quality, Modeling Results, paragraph 2, lines 1 and 2, states, "No secondary impact analysis has been done on emissions associated with this project." We ask why not? There is ample evidence to show that emissions of fluorides would impact wild and domestic animals. This information has been presented to BLM and the State of Wyoming.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

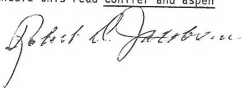
Page 4

- 12.15 | Page 4-24, 4.2.5 Wildlife, Plant Complex, paragraph 3, line 5-8 states, "... poaching ... would increase ... by no less than 8 percent." Evidence exists that poaching by construction workers more than doubles the rate of violations in areas where they are working. It is not a straight line progression. The potential impact is significant and, with the past experiences in SW Wyoming, impact assistance to the Wyoming Game and Fish Department should be required of Chevron to meet this anticipated problem.
- 12.16 | Page 4-36, Sagebrush/Grass, paragraph 1, line 1, states, "Sagebrush/Grass: This species" Sagebrush is a common term for any or all woody species in the genus *Artemisia*, while grass is a common term usually applied to plants in the Gramineae, or grass family, and other grasslike plants in other families. Rewording is in order to make the point clear.
- 12.17 | Page 4-36, Sagebrush/Grass, paragraph 1, lines 3-4 states, "... but would be allowed to revegetate over the entire right-of-way." We strongly recommend the right-of-way be replanted to native species that are destroyed during construction. Regrowth takes too long to occur, and in many cases far longer than the predicted 10 to 25 years.
- 12.18 | Page 4-49, 4.5 Big Sandy Unit, Colorado Water Quality Improvement Program Alternative, paragraph 2 states, "Impacts ...: Supply of 21,740 ac-ft/yr of water." According to Bureau of Reclamation's 1982 Joint State and Reclamation Planning Report on the Big Sandy River Unit, page 3, paragraph 4 it states "... develop about 7,000 acre-feet annually for a phosphate fertilizer plant ... near Rock Springs by Chevron Chemical Company." It appears there is an error in the amount of water the Big Sandy Unit would supply and a correction is needed.
- 12.19 | Again DEIS states, "Removal of 78,000 tons of salt annually" The document cited above reports the reduction would be 47,600 tons/yr reduction." These two figures are in conflict.
- 12.20 | Again DEIS states, "... at 6.7 milligrams per liter." The above cited document reports a 5.1 mg/l reduction at Imperial Dam.
- 12.21 | Page 4-64, Water Resources, line 5. The cost of each 1 mg/l salt at Imperial Dam is \$513,000, not \$472,000. The higher amount was determined to be the revised cost figure by Bureau of Reclamation.
- 12.22 | Page A2-6, 6. Soils, (e), line 5, "revegetating." What species will be planted?
- 12.23 | Page A2-7, 10, Wildlife, (b), line 4. Should winter be changed to spring?

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

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- 12.24 | Page A2-19, A2.2.4, Land Preparation for Seeding and Cultivation, paragraph 3, line 8 states, "... areas with steeper slopes to increase" What measure(s) determine a "steeper" slope?
- 12.25 | Page A7-3, Revegetation, paragraph 3, line 9 states "... years for conifer aspen trees" Should this read conifer and aspen trees?



Attachment

cc: FWS/OEC - Washington, DC
RO, Region 6 - Denver, Colorado (HR)
FWS/ES - Billings, Montana
FWS/ES - Cheyenne, Wyoming
Utah DWR - Salt Lake City, Utah
Utah DWR - Vernal, Utah
Wyoming Game & Fish - Cheyenne, Wyoming
Wyoming Game & Fish - Green River, Wyoming

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 12

- 12.1** With present levels of knowledge, effects of fluorides on sagebrush, pronghorn, mule deer, sage grouse, and domestic sheep cannot be determined for the Rock Springs, Wyoming, area. Additionally, computer modeling of fluoride deposition downwind of the proposed plant site was not accomplished for this EIS because of the speculative nature of determining impacts. Even though the fluoride emissions are within State of Wyoming standards, some question remains as to the effects of this element on wildlife, vegetation, and domestic livestock in the arid southwest portion of Wyoming. For these reasons, the following monitoring program has been recommended:

A monitoring program should be initiated to determine amounts, kinds, and dispersion of downwind emissions, particularly fluorides, from the phosphate plant. The program should gather existing baseline data on concentrations in endemic plants and wildlife (particularly pronghorn, mule deer, sage grouse and domestic sheep). The program should then monitor accumulations (if any) of the emissions in plants and animals after production commences.

Appendix 1, Item 24, of this EIS also identifies a similar monitoring program to determine baseline data and comparisons over time after production commences.

- 12.2** A monitoring program will be developed and implemented to isolate and analyze downwind impacts of emissions on soils, vegetative cover, and productivity. Analysis cannot begin until Chevron actually begins construction because any analysis done now would be speculative in nature. Refer to the ISA "Permit Conditions to Mitigate Environmental and Socioeconomic Impacts" in Appendix 1 of this EIS.

Refer to response to Comment 12.1.

- 12.3** We have assumed that the "5" was intended to be "S" and, therefore, have revised Section
12.4
12.5 1, Summary, to reflect Comments 12.3, 12.4, and 12.5.

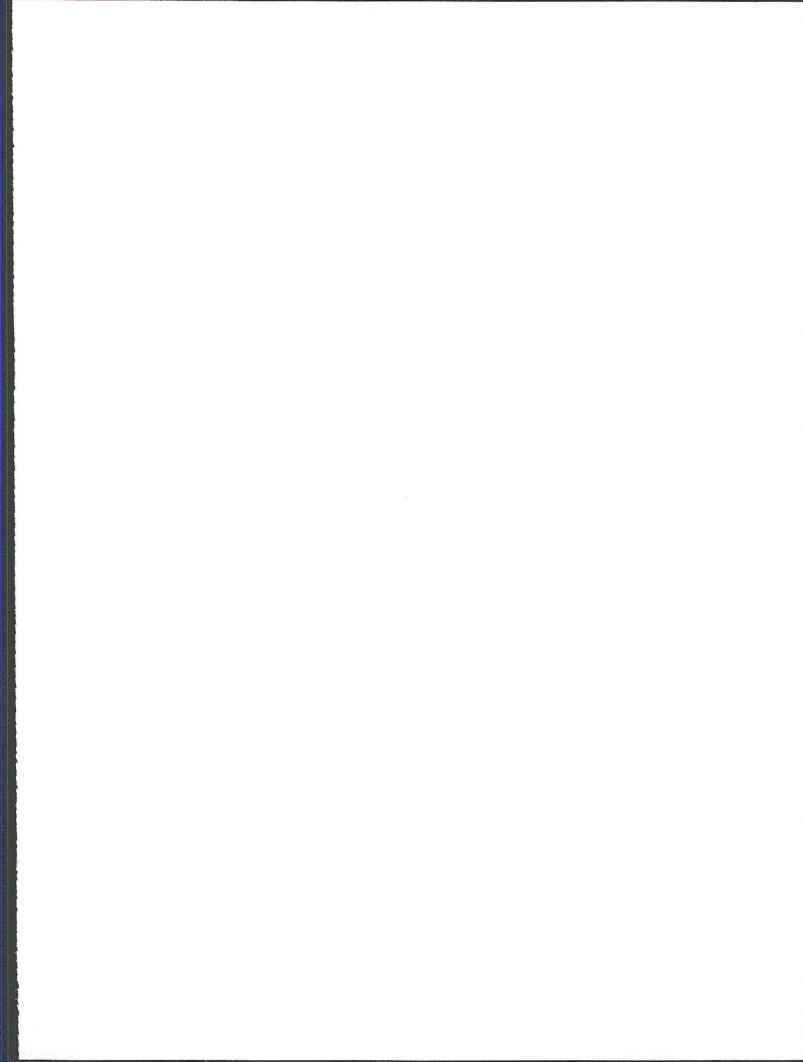
- 12.6** Refer to Section A2.2.5, Revegetation (Reseeding and Planting), pages A2-19 and A2-20, of the draft EIS, for required measures concerning revegetation. Specific species and

seed mixtures will be included in the project erosion control and reclamation plan.

- 12.7** The paragraph has been changed to include "reduced forage". Refer to the Errata Summary for revision.
- 12.8** Refer to discussion for the Plant Complex, pages 4-37 and 4-38 of the draft EIS, for the effects of emissions on vegetative cover and productivity. Also refer to response to Comment 12.1.
- 12.9** The agriculture employment numbers for 1984 and 1990 are based on projections presented in the Ashley Valley Master Plan. The 1980 figure is taken from data compiled by the Bureau of Economic Analysis, Regional Economic Information System (1982). This information was not available when the master plan was prepared. Differences in statistical methods, combined with unexpected declines in Uinta County agricultural employment, account for the lower 1980 figure presented in Table 3-2.
- 12.10** Agree, refer to the Errata Summary for text revision.
- 12.11** Your observation is correct. Due to a printing error, "weekend use" was printed as a heading for both columns. Refer to the Errata Summary for correction.
- 12.12** Sentence has been deleted per your comment. Refer to the Errata Summary for revision.
- 12.13** We have updated the text to reflect your comment. Refer to the Errata Summary for revision.
- 12.14** Secondary impacts in this case (page 4-19, Section 4.2.4, Air Quality, Monitoring Results, paragraph 2, lines 1 and 2) mean impacts from other activities associated with the plant such as additional car emissions, additional home construction, etc. In contrast, fluoride emissions would be considered "direct impacts." These have been addressed and found to be within the applicable standards.
- 12.15** Refer to response to Comment 9.35.
- 12.16** Statement has been revised in Section 4, Errata Summary, to reflect your comment. For description of species included in this vegetation unit, refer to Table 3-16, page 3-30, of the draft EIS.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

- 12.17** The right-of-way and any site disturbance will be reseeded generally with adapted native species. Introduced species may be used for specific conditions if approved by the landowner and regulatory authority. Refer to Section A2.2.5, Revegetation (Reseeding and Planting), of the draft EIS.
- 12.18** Thank you for this information. However, the figures you have provided do not correspond with those supplied by the Bureau of Reclamation. Please refer to Comments 18.7 and 18.11 and their respective responses.
- 12.20**
- 12.21** Refer to response to Comment 12.13. This information became available after the draft EIS was sent to the printer.
- 12.22** Only species adaptable to local soil and climatic conditions will be used; generally, these would be native species. However, introduced species may be considered for specific conditions when approved by the landowner and regulatory authority. Specific seed mixtures and rates will be included in the erosion control and revegetation plan. Refer to Section A2.2.5, Revegetation (Reseeding and Planting), of the draft EIS, for discussion concerning revegetation measures.
- 12.23** Your observation is correct. Text has been revised to reflect this comment. Refer to the Errata Summary for correction.
- 12.24** As stated, pitting and contour furrowing are conservation measures that are effective for use on steeper sloping areas to increase water infiltration which, in turn, reduces runoff and erosion. Refer to page A2-18 of the draft EIS.
- 12.25** Correction has been identified in the Errata Summary.



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 13

**ORTHO****Chevron Chemical Company**505 Broadway, Rock Springs, Wyoming
Mail Address: P.O. Box 1928, Rock Springs, WY 82901

Fertilizer Division

March 11, 1983

DRAFT EIS COMMENTS
CHEVRON PHOSPHATE PROJECT

Richard E. Traylor
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, CO. 80228

Dear Dick:

The following are Chevron's comments on the Draft EIS for your consideration in preparing the Final EIS.

General:

13.1

1. As a result of BLM's letter of June 10, 1982 to the state Siting Administration identifying the potential northern route for the waterline, we are submitting under separate cover the preliminary Green River route which reflects input obtained from BLM, Mt. Fuel, UPRR, etc. It is pointed out that the location of the alignment between Green River and its intersection with the Trailblazer pipeline (MP 0 to approximately MP6) is general and will vary somewhat depending on the actual location of the existing pipelines. The remainder of the waterline would parallel the Trailblazer line except for a detour around the Nightengale station. Just before MP 15, it would leave the Trailblazer line and angle toward the plant. Access, telephone and electrical power, is available to the pump station from existing facilities located within the rail yard. No microwave facilities are anticipated. For purposes of analysis, the pump station and pipeline design criteria would be the same as described for the Davis Bottom line.

13.2

2. The Draft EIS identified the MAPCO alternative including that portion through Jesse Ewing Canyon as the agencies' preferred slurry pipeline alternative. The Jesse Ewing Canyon portion of the alternative is not practical or constructible from Chevron's standpoint. We feel that the following reasons need to be included to fully inform the public of the magnitude of the anticipated impacts of the BLM's proposed Jesse Ewing alternative.

- a. Portions of the existing road exceed the maximum 15% grade set for the pipeline.
- b. Portions of the canyon are very narrow with steep rocky slopes on both sides which restricts the amount of space available.
- c. The existing MAPCO pipeline is located in the cut portion of the county road reducing the space for new construction. More importantly, the presence of the MAPCO line would impose severe restrictions on new construction in the road.

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13.2
(Cont.)

d. The slurry pipeline must be located in the cut portion of the work area rather than the fill portion and since the MAPCO line is located in the cut portion of the existing road, that precludes the slurryline from being located in the existing road.

e. Blasting adjacent to the MAPCO line by itself could cause damage to it and sufficiently large quantities of rock would be deposited on top of the MAPCO line and the county road. The volume of material to be blasted would create an unsightly scar, substantially alter the terrain and cannot be economically removed or disposed of outside of the canyon. MAPCO could not suspend use of their line during this period of construction.

f. Any construction in Jesse Ewing Canyon would necessitate closing the road to public access for approximately two months during the entire construction period.

g. At least one spring would have to be avoided.

Chevron believes that another, more acceptable alternative other than paralleling MAPCO through Jesse Ewing Canyon can be found before the Decision Document is issued. Chevron has, therefore, requested in a letter of February 1, 1983 to Mr. Don Sweep, to work with the BLM in developing a viable alternative which would be constructible and avoid the problems identified. Mr. Sweep concurred with our request on March 2, 1983. Before a viable alternative can be developed, including further consideration of routes within the Red Creek Canyon and Willow Creek corridors, additional field work is necessary as identified in our letter.

Specific Comments:

Page Column Paragraph/Line

13.3

Cover Sheet

The cover sheet states only "This EIS assesses the environmental consequences of State and Federal approval of a phosphate project proposed by Chevron Chemical Company (Chevron)." Since 40 C.F.R. 1502.11 requires a cover sheet to show the title of the proposed action that is the subject of the statement (and if appropriate, the titles of related cooperating agency actions), the cover sheet should either incorporate by reference Table 1-1, Major Federal Authorizing Actions, or borrow the second paragraph of the preface on page xxi which briefly lists the Federal action requests which initiated the preparation of the EIS.

Summary

13.4

S-2 Socioeconomic

This summary identifies only negative impacts. We feel that the positive impacts such as stabilizing the economy, providing jobs, and additional tax revenues, etc. should be included.

13.5

S-2 Transportation Network

The impact of the slurry pipeline construction on the existing MAPCO pipeline in the Rye Grass Draw area cannot be evaluated until the actual alignment of our line is fixed. Obviously we would fix the

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

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Page Column Paragraph/Line

13.5
(Cont.)

alignment in such a way to minimize any impact whatsoever on the MAPCO line. As we have discussed, part of the evaluation of the Jesse Ewing Canyon route needs to include the requirement that road construction would force a total closure of that road for at least two months. There is no way that we would be able to arrange for intermittent bypasses of the construction in that area. Construction paralleling MAPCO through Jesse Ewing Canyon for both the MAPCO and Willow Creek alternatives would cause the deposition of significant quantities of rock and spoil on the Jesse Ewing Canyon road. This would not only force the closure of the road, but would also pose a significant hazard to the MAPCO line. Considering these problems and in view of the steepness of the grade through the canyon, Chevron, therefore, does not consider any construction paralleling MAPCO in Jesse Ewing Canyon to be practical or constructible. As stated earlier, we plan to seek out a more suitable alternative to the Jesse Ewing Canyon route in field reviews with the BLM this spring.

13.6

S-3 Left 3/10

The sentence expressing concern for particulate emission near Rock Springs should be deleted. The plant's particulate emission will have no effect upon Rock Springs as is shown in the PSD application.

13.7

S-4 Right Wilderness

This paragraph should also identify that BLM's Draft Wilderness EIS recommends that the Red Creek Badlands WSA "... be managed as non-wilderness, for other multiple-use objectives."

13.8

S-5 Right Agency Preferred Alternatives

No reasons are offered for preferring the alternatives designated by BLM. In order for the public to have a meaningful opportunity to comment, the reasons for their preference must be documented and particularly any reasons that may have been identified in the analysis of either Chapter 2 or Chapter 4.

Chapter 1

13.9

1-1 Right Purpose & Need last paragraph

This paragraph should be expanded to include the following additional purpose and need of the project as identified in Chevron's Industrial Siting Permit page 2-72. "Because of the different geographic locations of the phosphate rock and sulfur, either one or both of the raw materials would have to be shipped to a manufacturing plant no matter where it was sited. This situation coupled with the fact that Chevron Chemical Company was not constrained to build the plant adjacent to either the phosphate reserves or the sulfur provided the opportunity to select the most desirable site from an environmental and economic standpoint."

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	<u>Page</u>	<u>Column</u>	<u>Paragraph/Line</u>	
13.10	1-24	Left	4/5	This sentence should be revised to indicate that Negligible amounts of fluoride gas emissions would be released . . . See table 1-11 page 1-47.
13.11	1-29	Right	2nd/2nd & 3rd lines	Should be changed to read: ". . . run parallel and adjacent to the MAPCO/Mt. Fuel pipelines . . . and follows <u>them</u> as <u>they</u> ascend . . ."
13.12	1-29	Right	Last	The original 930 AF we provided earlier is incorrect. The amount of water required for the slurry pipeline is currently estimated to average between 1330 to 2030 acre feet/year.
13.13	1-32	Left	Last	Delete the 2.13 through 2.20 GHz "The system would be operated using frequencies reserved for narrow band applications of private/industrial services as defined by part 94 of the Federal Communications Commission Rules and Regulations." The actual frequency band used should not be mentioned since other microwave systems in the area might be operating on all the frequencies of a band. Thus, the Federal Communications Commission might require the use of frequencies from several bands to reduce any interference.
13.14	1-32	Right	1st partial/2	This sentence should read: "All active radio equipment would be provided in a hot-standby (one-for-one protection), space diversity configuration . . . Space diversity means that two antennas are used at each end of a microwave path. This greatly increases the reliability of a microwave system.
13.15	1-32	Right	1st partial	Add to this paragraph the following: "To provide communications along remote sections of the pipeline for maintenance and emergencies, a mobile radio system is required. This system would consist of radio repeaters, housed in microwave equipment shelters and utilizing the microwave towers, and consist of mobile radios installed in pipeline operator's cars. The system would be operated with frequencies that are reserved for private/industrial services as defined by part 90 of the Federal Communications Commission Rules and Regulations."
13.16	1-32	Right	4/5	This sentence should be replaced with the following: "New towers at Blue Mountain, Vernal, Rock Springs, and the slurry booster pump station would be approximately 60' tall. Towers at Grizzly Ridge and Wilkins Peak would be approximately 100' tall. Equipment shelters should not exceed 10' x 24' in size." The actual size of the towers cannot be determined until field path surveys are performed. The 10' x 24' buildings would be required to house standby generators

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13.16 (Cont.)			at Wilkins Peak, Grizzly Ridge, and Blue Mountain. Other locations would have smaller buildings.
13.17	1-34 Left	1st partial/1	The following changes should be made as a result of more recent studies. "The booster pump station microwave tower at Davis Bottom site would vary in height from 50 to 225 feet tall depending upon its location."
13.18	1-34 Right	1st/8	This sentence should read: ". . . except that the tower at the intake pump station would vary in height from 150 to 300 feet depending upon its location."
13.19	1-36 Left	1.8.1 2nd/ 5th line	We feel that it should be emphasized in the EIS that this slurryline has a 15% grade limitation which creates design and routing limitations not imposed upon oil or gas pipelines. The 15% grade limitation would require locating the line some distance away from and above the existing county road and MAPCO pipeline. It could not be located parallel to MAPCO.
13.20	1-36 Left	4th/Beginning line 2	See general comment #2 and comment for page S-2.
	1-37 Left	1st partial/ line 4	See comment for page S-2.
13.21	1-37 Left	1.9 No Action Alternative	The discussion of the economic disadvantages of the no action alternative should be expanded on here and in Section 4.7 page 4-58. As discussed in the Wyoming Industrial Siting Council Permit Application at pages 2-72 and 2-73, other ways of exploiting the phosphate and sulfur resources were considered, but these were less desirable for economic and environmental reasons. In addition, the no-action alternative would have adverse socioeconomic effects. Among these are likely to be the loss of revenues to the cities, county, and school districts; loss of capitol investments in the area for housing and other developments; reduce the number of available jobs and loss of the mitigation improvements (housing, etc.) that Chevron would implement to mitigate the effects of its development.
<u>Chapter 2</u>			
13.22	2-1 Right	2.2.1	This analysis does not include any reasons for preferring the Middle Firehole alternative over Davis Bottom, particularly in view of the testimony of the Wyoming Game and Fish Department provided at the Industrial Siting hearing. See also general comment #1. The only impacts offered in the narrative and Tables 2-2 and 2-3 shows a greater impact at Middle Firehole than Davis Bottom particularly impacts to wildlife habitat. Analysis beginning on page 4-43 offers no reasons either.

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Chapter 3

- | | | | |
|-------|------------|---------------------------|--|
| 13.23 | 3-1 Left | 3.1.1/5 | It is difficult for us to understand how secondary impacts will be noticed throughout the entire Colorado River system. That is a big system and we would suggest that secondary impacts would cause only minor impacts to the Colorado River system not a noticeable increase. If there are any noticeable secondary increases, they should be specifically identified and documented in order to provide a basis for public comment. |
| 13.24 | 3-10 Right | 2nd line | As of January, 1983, the vacancy rate is estimated to be 20%. |
| 13.25 | 3-16 Right | 1/7,8, & 9 | Is this statement correct? It implies that the survival of the population over the "entire area" would be affected rather than just the birds of individual leks that might be disturbed. |
| 13.26 | 3-27 Left | Railroad spur/
Line 4 | The reference to the spur "traversing a former town dump" is incorrect. The 2% alignment would cross the town dump. The proposed 1.5% alignment avoids it. It does, however, cross the Trailblazer pipeline and Overland Trail. |
| 13.27 | 3-31 | Table 3-18 | The cumulative acres of sagebrush/grass does not equal the total of 101.3 acres shown. The remaining totals would subsequently be incorrect. |
| 13.28 | 3-38 Left | 3.5.2/lines
3, 4, & 5. | This sentence should be rewritten. The Willow Creek and MAPCO alternatives cross the Green River at MP 33.5 as shown on Map 1-2, the same location as the proposed action. |

Chapter 4

- | | | | |
|-------|-----------|------------------------|--|
| 13.29 | 4-2, 4-3 | Tables 4-1 &
4-2 | Micrograms per cubic millimeter is incorrect and should be changed to micrograms per cubic meter. |
| 13.30 | 4-7 Right | 2 | The mitigation proposed by Chevron of installing cement sack breakers or riprap in the channel to collect sediment would result in an additional long term benefit. |
| 13.31 | 4-8 Left | 4.4.4/1st
paragraph | This paragraph should be expanded to include the Wyoming Industrial Siting Council finding that the Chevron Phosphate Project does not pose a threat of serious injury to the environment nor to the socio-economic condition of inhabitants or expected inhabitants (Siting Council Initial Decision, 43b). Attachment #1 is a copy of the final Siting Council initial decision. |
| 13.32 | 4-10 | Table 4-4 | The source of this table is from Chevron but not the Industrial Siting Permit application as indicated. |

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13.32 (Cont.)			This table should be footnoted to clarify that it includes both Wyoming and Utah average annual workforce requirements. The Industrial Siting Permit application only includes Wyoming workforce requirements.
13.33	4-18	Left	Red Creek Canyon slurry pipeline/5, 6, and 7
			The slurry pipeline does not cross Highway 191. However, each of the water pipeline alternatives (Davis Bottom, Middle Firehole, or the Green River) would cross Highway 191.
13.34	4-19	Left	4.2.4 Air Quality
			This paragraph should be expanded to include the Industrial Siting Council's finding that the facility's compliance with all applicable Department of Environmental Quality air-contaminant and water discharge standards will preclude impairment of the health of the area's inhabitants (30). The State of Wyoming has been authorized by EPA to administer the Air Quality programs within the state.
13.35	4-19	Right	Meteorology
			This paragraph should be expanded to include the Council's finding (paragraph 39) "Construction and operation of the proposed facility will have minimal adverse impact on regional climactic patterns and meteorology."
13.36	4-23	Left	Microwave Systems
			This section should be changed as follows: "Chevron would construct a shelter that should not exceed 10' x 24' and a microwave tower at Wilkins Peak, Grizzly Ridge, and Blue Mountain. These sites would have standby generators which would only be operated during a commercial power failure and during a one hour period each week to assure standby generator operation. The emissions from this construction and from the operation of the generator would be negligible, and there would be no significant impact on ambient air quality."
13.37	4-23	Left	Summary/3,4, & 5
			Our project will have no impact at all on particulate emission in Rock Springs as shown in our PSD permit application. Chevron will not be doing any TSP monitoring in Rock Springs. This sentence should be deleted.
13.38	4-25	Right	1st partial/ 5 & 6
			This paragraph needs to be expanded to clarify conclusions drawn by Suttie and Shupe. Attachments 2 and 3 respectively, are copies of Suttie's "Effects of Fluoride on Livestock" (1977) and Shupes "A Symposium - The Technical Significance of Air Quality Standards" (1969) which is the basis for our comment. As far as we can tell, none of the vegetation on Map A4-7A would be affected. The last sentence should be changed to include the following: ". . . 7b) has the potential to cause fluorosis, a bone disease. If amounts above the tolerance level

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13.38 (Cont.)			(which varies with interacting factors) are ingested for long periods, fluorine toxicosis, or fluorosis, may result." (Shupe 1969). See also comment for pages 4-19 and 4-60.
13.39	4-30 Left	Microwave Systems/2	This sentence should be changed to read after ". . . existing mountain top communications sites and would add a passive reflector and a radio shelter to an area near an existing road and drill pad."
13.40	4-38 Left	1st partial/8	The reference to further research should be deleted. There is no correlation between emissions from plants that burn phosphorous and phosphate fertilizer plants. There appears to be enough data available to establish tolerance levels. The Idaho data referenced here was collected around elemental phosphorus plants (Final EIS - Idaho Phosphate).
13.41	4-42 Right	4.2.14/st paragraph	This paragraph should be expanded to include the Industrial Siting Council's finding (37) that the health, safety or welfare of present or expected inhabitants of the area will not be substantially impaired by the construction and operation of the Chevron Phosphate Project.
13.42	4-42 Right	1st/12 & 13 3rd/1, 2, & 3	Estimated uncontrolled seepage downstream of the gypsum impoundment's cut off trench would be approximately 2 gpm of fluid after about 2 years of operation and approximately 4 gpm after 30 years of operation. Based on the results of chemical studies conducted by our consultants on the soils of the gypsum impoundment, any potentially hazardous constituents in the gypsum effluent will have been neutralized and removed after coming into contact with the first foot of native calcareous soils beneath the impoundment. The water quality of the seepage beyond the cut off trench is anticipated to be the same as the existing groundwater. Similar results have been experienced at gypsum impoundments in Idaho which have calcareous soils beneath them. The mitigation provided in permit conditions 15 and 16 of the Industrial Siting Council's initial decision should be included.
13.43	4-43 Right	4.3	See comments, pages S-5 and 2-1.
13.44	4-50 Left	4.6.1	See comments pages S-3, S-5, 1-36, 1-37 and 2-7.
13.45	4-50 Left	2nd	Because of the volume of rock to be blasted, it is not economically feasible to remove and dispose of it outside of the canyon even if a suitable site could be found and it would require keeping the road closed for additional time. Spoil material cannot be economically hauled for distances greater than one mile.

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	Page	Column	Paragraph/Line	
13.46	4-50	Left	2nd/6 & 7	Should be changed to read: . . . that for about two months . . . traffic would <u>have to be discontinued</u> .
13.47	4-58	Left	4.7	See no action comment page 1-37.
	4-58	Right	4.8.1 1st sub-paragraph	This requirement for check dams will require further evaluation before agreeing to the mitigation. We have no idea where such dams would be needed on the Red Creek Basin escarpment. We will need to determine the financial impact that such construction would have on the project and the impact the disturbance from such construction and the ultimate reclamation would have on decreasing or increasing siltation into Red Creek. We will continue to work with BLM to develop a mutually acceptable solution.
	4-58	Right	4.8.1 2nd sub-paragraph	This is another area requiring further evaluation before agreeing to the mitigation. We have no information as to the extent of the wet area referred to, how much water might be involved, or the nature of the soils in the area. These factors would have to be evaluated along with the cost when the final alignment is known. We will, however, work to develop a mutually acceptable solution if a problem exists.
	4-58	Right	4.8.1/3rd sub-paragraph	The possibility of installing some form of a sediment trap was raised during our field inspection in October. This proposed measure would require further evaluation and alternative analysis before we could agree to it. The effectiveness and cost of this sediment trap, in addition to the difficulty of laying the line in the canyon itself, would have to be determined. To our knowledge, no one has undertaken a serious engineering study of such a structure. This requirement clearly will have a significant financial impact on the project, particularly if we are required to maintain the trap for two years and if required to bear the cost of removing it at the end of that period.
13.48	4-59	Left	1st full sub-paragraph	Insert after "to surface (gravel)" " <u>where required on</u> " all permanent roads, <u>for which a right-of-way has been granted . . .</u> "
	4-59	Left	3rd sub-paragraph	The best slurry pipeline rupture prevention technology will be used on all river and stream crossings as provided in this measure. At present, we plan to use heavier wall pipe in the Green River crossing to minimize the potential for a break at this point as well as any other appropriate measure developed during the final design. As pointed out several times, the use of main line valves on slurry lines or valves requiring frequent and continued service

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				is to be avoided. Such valves are prone to sticking and in fact must be lubricated prior to every operation. A valve that cannot be closed in an emergency would be of no benefit to the environment. Additionally, a valve that is partly open or closed would present a hazard in itself in that it would be quickly destroyed by the passage of accelerated abrasive slurry particles thus increasing the potential for pipeline failure.
13.49	4-59	Left	4th/5	After gypsum pond, insert <u>if problems develop</u> . These words were in the preliminary draft and need to be included here.
13.50	4-59	Left	5th/1 & 2	Should be either deleted or changed to read: surfaced <u>major access</u> roads . . . Dilling or watering is not needed on every road. Measure d. P A2-6 adequately covers this concern.
13.51	4-59	Right	2nd	Does this measure apply to power distribution lines?
	4-59	Right	3 & 4	The length of line required to be buried in both of these measures is excessive and expensive. These are not economical.
	4-59	Right	7th	The only other technically feasible, and we would add reasonably economical, methods of providing communications to the Davis Bottom or Middle Firehole pump stations instead of the proposed microwave tall towers is to install a passive repeater approximately 15' x 15' on the bluff west of the respective pump station. The repeater, however, would still be visible from the river.
13.52	4-60	Left	4.8.2 Monitoring 2nd	Chevron has not already agreed to establish this type of monitoring. We have agreed to cooperate with the Game and Fish Department, Fish and Wildlife Service and BLM but the necessity for this type of monitoring has not yet been established. The effects of fluoride on vegetation and wildlife are well documented in the literature. Present data indicates minimal impact.
13.53	4-63	Right	4.10.1 1st	This paragraph needs to be rewritten. It implies that phosphate slurries are in use throughout the U.S. To our knowledge, there is only one line of similar length in operation in Brazil. A shorter line is under construction in Idaho.
13.54	4-63	Right	4.10.1 2nd	This statement would appear to be more appropriate for inclusion in a programmatic EIS rather than this site specific EIS. Movement of water from one area to another is not an issue for our project since the source of the water to be used for the slurry has been determined.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Richard E. Traylor

-11-

March 11, 1983

Page Column Paragraph/Line

13.55

4-64 Right 1st complete/4

This sentence is incomplete. While it could be a significant impact and affect every bird that visits the impoundment, the mitigation provided in the Industrial Siting Council initial decision will minimize adverse impacts to wildlife and therefore it is unlikely that heavy losses would occur.

13.56

G-1 Right

The formulas for fluosilicic acid and gypsum should be H_2SiF_6 and $CaSO_4 \cdot 2H_2O$ respectively.

Appendix 2

Chevron is concerned with the wording of several required mitigating measures including the following. Depending upon the alternatives selected in the Decision Document, many of these measures, however, would not apply. We will continue to cooperate with the BLM/FS in developing and making changes to appropriate measures to be included in the specific right-of-way grants at that time.

13.57

A2-4 Left 1.h

See general comment #2 and specific comment for page S-2. This measure, as written however, would not allow sufficient time (2 months) for construction. The specific dates between Labor Day and the general hunting season should be added to insure that at least 2 months of time are available. It would also seem preferable to construct at a time when school was not in session. This timeframe may also not coincide with the construction time allowed for crossing the Green River which could require constructing these segments at different times. This pipeline is too short to be constructed with more than one spread.

13.58

A2-6 Left 6.3/line 3

Should be changed to read: terrain to the extent practical by replacing . . .

13.59

A2-8 Left 10h

Is this date consistent with low flows? If so, the low flow dates should be added. The slurryline would cross the Green River in Section 31 T2N R25E.

13.60

A2-10 Left 2b

This measure needs further clarification or example to explain what is intended.

13.61

A2-13 Right 13g/2nd

Should be changed: . . . sidehill cuts) to the extent practical will be restored . . .

13.62

A2-15 Both A2.2
Measure 1 & 2

It should be clarified that while Chevron will likely apply mitigating measures developed in the construction plan unilaterally on federal, state and private land, we will not prepare separate plans for state lands in Wyoming and Utah unless required by the respective states' agencies.

13.63

A2-17 Right 1st measure/
2nd

Delete and density. The last measure on this page is appropriate and conflicts with this measure. Fill material replaced in the trench is not compacted.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Richard E. Traylor

-12-

March 11, 1983

Page Column Paragraph/Line

- | | | | |
|-------|-------------|--------------------|--|
| 13.64 | A2-18 Left | last sub-paragraph | While we concur with the intent of this measure, it would be preferable to say that the right-of-way and other structures built to facilitate the construction of the pipeline would be contoured to resemble the original grade to the extent practical as agreed to by the authorizing officer in consultation with Chevron. It must be understood that much of the material moved on steep slopes, particularly rocky slopes, will be economically unrecoverable. |
| 16.65 | A2-20 Right | A2.3.1 Measure #1 | Should also include the following sentence: Any exception must be authorized in writing. |

Thank you for your consideration of these comments and your cooperation and assistance.

Sincerely yours,

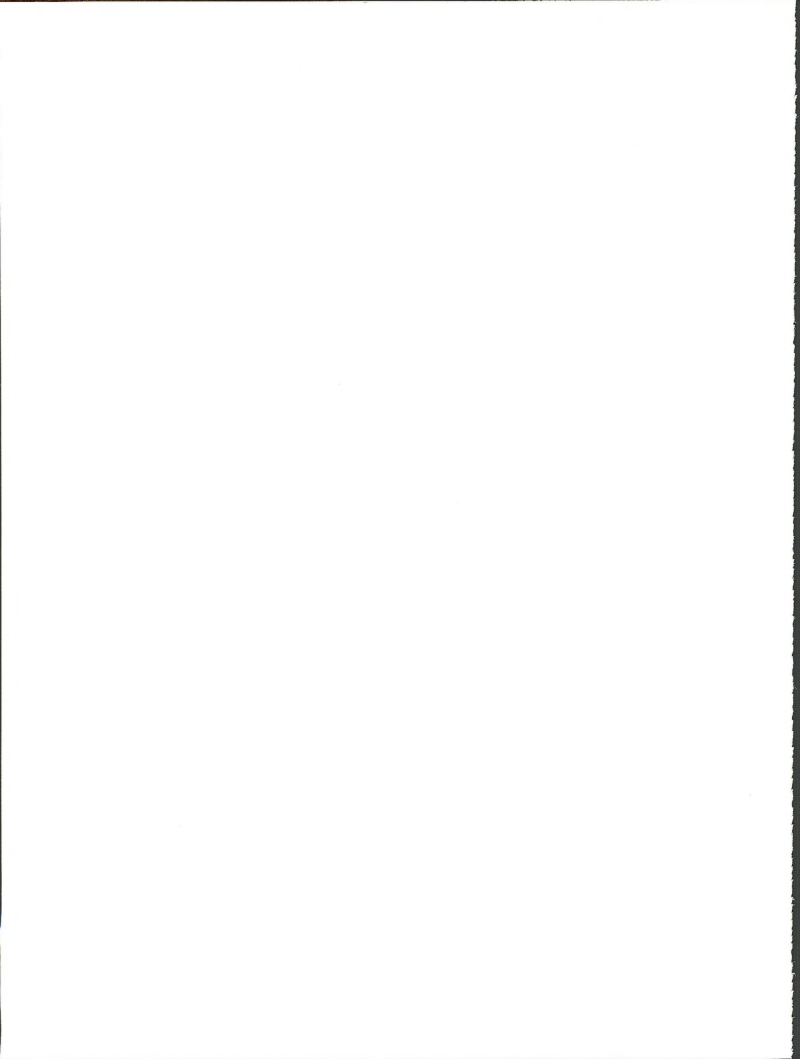


Dean F. Forsgren
Environmental & Permitting Coordinator

DFF/dp

Attachments

cc: P. L. Rushing/J. A. Malloch)	wo/attach.
J. N. Stambolis)	" "
J. L. Cunningham)	" "
W. J. Thomson)	" "
R. F. Winkel)	" "
L. H. Ferguson)	" "
D. H. Sweep)	w/ attach.
R. C. Moore)	" "



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 13

- 13.1 The new Nightingale Station Plant Process Water Pipeline Alternative has been addressed. Refer to Section 3 of this EIS, for analysis of this alternative.
- 13.2 Since a detailed engineering design has not been completed, it has not been determined whether or not the Jesse Ewing Canyon portion is "practical or constructible." Items A through G, listed in the comment, are all significant points to be considered in the final design.
- 13.3 No change is felt to be necessary, since the title Chevron Phosphate Project is all-inclusive, and all other actions involve approval of the project.
- 13.4 The intent of the Summary was to incorporate and allude to significant, long-term impacts addressed in Chapter 4 of the draft EIS. While there would be beneficial impacts on employment, these impacts were considered insignificant according to the analyses (page 4-8, draft EIS). It is also true that Sweetwater County would benefit from implementation of the project. However, this would be only a short-term impact, and insignificant when compared with the probable, forecasted growth pattern (refer to page 4-11 of the draft EIS).
- 13.5 There should be enough room within Rye Grass Draw to avoid all conflicts with the MAPCO pipeline; however, as stated, this cannot be evaluated until the actual alignment is fixed.
- Refer to response to Comment 13.2 for discussion on the Jesse Ewing Canyon.
- 13.6 This sentence has been deleted per your comment. Refer to Section 1, Summary, for correction.
- 13.7 The Summary has been revised to reflect this additional information. In addition, changes have been made to page 3-24 of the draft EIS and are identified in the Errata Summary. The draft Wilderness EIS was not available at the time the Chevron EIS was being analyzed.
- 13.8 The CEQ regulations (1502.14(e)) require only the identification of the agency preferred alternative, not a discussion of why it was selected. The comparative analysis of environmental consequences is to provide an analysis of the impacts, not reasons for preference. The intended record of decision (1505.2(b)) discusses the preferences between alternatives of the decision reached by the decision maker(s).
- 13.9 Thank you for this information; however, we do not feel that this information would add anything to the discussion contained in the draft EIS, nor do we feel the analysis of the impacts would change. Therefore, no change is necessary.
- 13.10 Factual data regarding emissions are indicated on Table 1-11. The comment did not indicate that these amounts were incorrect. Chapter 4, Section 4.2.4, of the draft EIS indicates that there would be no impacts.
- 13.11 In this area, the MAPCO and Mountain Fuel pipelines parallel each other; the proposed pipeline would parallel both of them. However, this would not change any of the impacts as analyzed and stated in the draft EIS.
- 13.12 This new information has been incorporated. Refer to the Errata Summary for revisions to the draft EIS. Since this amount would not change the amount of water removed from the Green River, no additional impact analysis was necessary.
- 13.13 While we appreciate this additional information, it would not change the impacts as analyzed and stated in the draft EIS. Therefore, no change has been made.
- 13.14
- 13.15
- 13.16
- 13.17 We appreciate this new information. However, it would not change impacts as stated and would not eliminate the need for the following mitigation measure as stated on page 4-59 of the draft EIS:
- 13.18 — to develop a technically feasible alternative to eliminate the microwave tower at Davis Bottom or Middle Firehole pump stations, depending on which one is authorized, in order to reduce the visual impact.
- 13.19 This statement is true. We have used "parallel" to mean that the slurry pipeline would share the same corridor as the existing MAPCO pipeline.
- 13.20 Refer to response to Comment 13.2.
- 13.21 The purpose of Section 1.9 (page 1-31) is to describe the No-Action alternative, not to discuss the impacts of the alternative. It is not appropriate to expand the discussion for economic losses. It is not proper to take credit for economic gain that has not yet occurred.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

This would be an incorrect analysis procedure. There is no revenue now being generated by Chevron in Sweetwater County; therefore, there would be no loss.

- 13.22** As discussed in the response to Comment 13.8, the EIS purpose is to analyze the impacts of the project, not to present reasons for preferring any alternative over another. The EIS is not a decision document, it only provides information to the decision maker on which to base an informed decision.
- 13.23** Flow and salinity will change, as shown on pages 4-5 to 4-8 of the draft EIS. A 1 mg/l increase is a significant impact, as stated on page 4-1 "significant impact . . . if salinity were increased." Flow has a 1 percent and a 10 percent threshold limit to determine significance (page 4-1). These will not be exceeded by the applicant's water use and do not represent significant impacts. No secondary impacts were identified as a result of the proposed project. Secondary impacts identified on page 3-1 of the draft EIS relate to the central-upper Colorado River Basin.
- 13.24** Information from the Rock Springs Planning Office (Unger 1983) indicates a vacancy rate for apartments of 20 to 25 percent. Single-family homes are showing a much lower rate, in the neighborhood of 5 percent. No actual data on vacancies in Sweetwater County have been compiled in the recent past.
- 13.25** Chapter 3 is the affected environment section and, as such, indicated only parts of the environment that could be affected (in this case, leks). Chapter 3 statements do not imply that the entire area would be affected. Chapter 4 details specific locations of the leks that would be affected.
- 13.26** The text has been corrected to explain that the 1.5 percent alignment is within 0.5 mile of the former town dump. Refer to the Errata Summary for revision.
- 13.27** The miles of Sagebrush/Grass vegetation affected by the plant power distribution line should be 5.0 not 50.0, as shown in Table 3-18. The remaining totals are correct. This correction has been identified in the Errata Summary.
- 13.28** This sentence has been rewritten per your comment. Refer to the Errata Summary of this EIS.
- 13.29** Your comment is correct as stated. This oversight has been corrected in the Errata Summary of this EIS.
- 13.30** This is true if the sack breakers or riprap were cleaned, maintained, and monitored. However, it would only be true for that area actually protected. The net result due to the stream being "incapable of transporting materials at a rate they are being supplied" (page 4-7 of the draft EIS) would likely be no change in the amount transported. In addition to this, the drainage density in the Red Creek Watershed is so intense, that to provide long-term benefits, a sediment structure such as that proposed in the Red Creek Watershed Management Plan would be necessary. The structure described is an earthen dam which would span the whole valley.
- 13.31** The introductory paragraph on page 4-8 of the draft EIS is not incorrect. The summary statements identified in Section 1 of this EIS and on page 4-14 of the draft EIS acknowledge and support the ISC finding and are more appropriately placed in these segments rather than in an introductory statement. Therefore, no change has been made.
- 13.32** The source of the table should be identified as submitted by Mountain West, consultant for ISA (see draft EIS, page R-2, right column, item 4). The figures contained in this table are the same as originally submitted by the consultant for incorporation into the draft EIS. Therefore, no change is deemed necessary.
- 13.33** The slurry pipeline would cross Highway 191 in Utah, at about MP 1.5, which is located just east of the mine.
- 13.34** The purpose of the paragraph referenced in the comment is to explain how the impacts were determined. The second paragraph (right column) page 4-19, states that the proposed plant meets all applicable National and State of Wyoming ambient air quality standards and prevention of significant deterioration (PSD) regulations.
- 13.35** The purpose of this paragraph is to detail the meteorology used in the analysis. The following paragraph states the results of the impact analysis. The impacts mentioned in the comment would not occur and, therefore, there is no need to mention them elsewhere in the document.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

- 13.36 Thank you for the new information. However, it would not alter the impacts as analyzed and stated in the draft EIS.
- 13.37 Refer to the Errata Summary for correction.
- 13.38 The paragraph has been revised to reflect your comment. Please refer to the Errata Summary for revision.
- 13.39 Although there are some existing communication sites in the general area, these would not change the impacts as stated in the draft EIS.
- 13.40 Further research and a monitoring program will be developed and implemented to isolate and analyze downwind impacts of emissions on soils, vegetation cover, and productivity. No deletion has been made, especially since this is a required measure by ISA (Refer to Appendix 1 of this EIS and response to Comment 12.1).
- 13.41 Section 4.2.14 is simply a description of potential hazards associated with the plant and its facilities. The findings of the Industrial Siting Council do not logically belong in this section. Rather, the reader of the EIS should be permitted to formulate independent conclusions based on the same information that was provided to the Council. NEPA and the Industrial Siting Act provide for two different processes with different goals. The findings of one should not bias the findings of the other.
- 13.42 The mitigation cited in ISA permit conditions, Items 15 and 16, is included in this EIS (Appendix 1).
- 13.43 Refer to responses to Comments 13.9 and 13.22.
- 13.44 Refer to response to Comment 13.2.
- 13.45 We believe that although hauling spoil material (rock) over distances greater than 1 mile might be costly and could be a slow process, the possibility of using this method is still viable. We cannot support the statement that it would "not be economically feasible" because we do not know either an alternative method nor the cost of using an alternative method. While it certainly would be cheaper to not haul the rock away, it would seem that it would be necessary in order to keep the Canyon road open for at least a certain amount of time. Construction would not necessarily have to be halted during the times when the road was open.
- 13.46 While we agree that construction could take as long as 2 months, the 1-month estimate is deemed reasonable for construction through this critical canyon area. The road would not have to be totally closed, although opening it for access for part of each day might slow construction somewhat.
- 13.47 Refer to response for Comment 13.21.
- 13.48 We do not feel that a change is warranted. It is generally assumed that all permanent roads that would be used on a continuous basis will have a granted right-of-way.
- 13.49 This statement has been revised to reflect this comment. Please refer to the Errata Summary for revision.
- 13.50 Refer to the Errata Summary for revision. We feel that this measure now adequately addresses your concern.
- 13.51 The measure does apply to power distribution lines and the measure has been rewritten for clarity. See the response to Comment 4.3 for a further related explanation and to the Errata Summary for revision.
- 13.52 This paragraph has been reworded to address your concern. Please refer to the Errata Summary for revision.
- 13.53 The word "phosphate" has been deleted for clarity. Please refer to the Errata Summary for revision. The original intent was that many slurry pipelines are being built. Most of these, however, involve coal.
- 13.54 Even though the source of the water for the slurry has been determined, it does involve movement of water from one area (Utah) to another (Wyoming). Therefore, this statement in the EIS is pertinent.
- 13.55 The paragraph has been revised. Refer to the Errata Summary for revision.
- 13.56 This correction has been made. Please refer to the Errata Summary for revision.
- 13.56a The measures listed in Appendix 2 of the draft EIS are standard measures that are and will be required by the federal agencies as part of any right-of-way grant. The cooperation of Chevron is appreciated, however, it will continue to be the federal agencies' responsibility to require

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

any measure. Chevron will have appropriate protest and appeal procedures at the time of the record of decision and right-of-way grant issuance.

- 13.57 Item 1.h, as stated in the draft EIS, is a required measure and reclamation procedure met by MAPCO during its pipeline construction and determined to be reasonable. Specific dates will be determined at the time the Plan of Construction and Operation is developed.

- 13.58 Item 6.e, as stated in the draft EIS, is a required measure and reclamation procedure mandated by both the Vernal and Rock Springs District Offices of BLM.

- 13.59 Generally, Brown trout spawn in the fall during the lowest flows of the year. However, since low flows in this river are controlled by the dam, trout spawning would probably occur sometime between September 15 and March 1, as stated on page A2-8 of the draft EIS. The township identification has been changed to reflect your comment. Refer to the Errata Summary for revision.

- 13.60 This is a Forest Service (Ashley National Forest) required measure. The intent of this measure is to protect water quality in nearby streams by utilizing an upland vegetative barrier to contain sediment and prevent it from entering the riparian vegetation area and eventually being transported into streams.

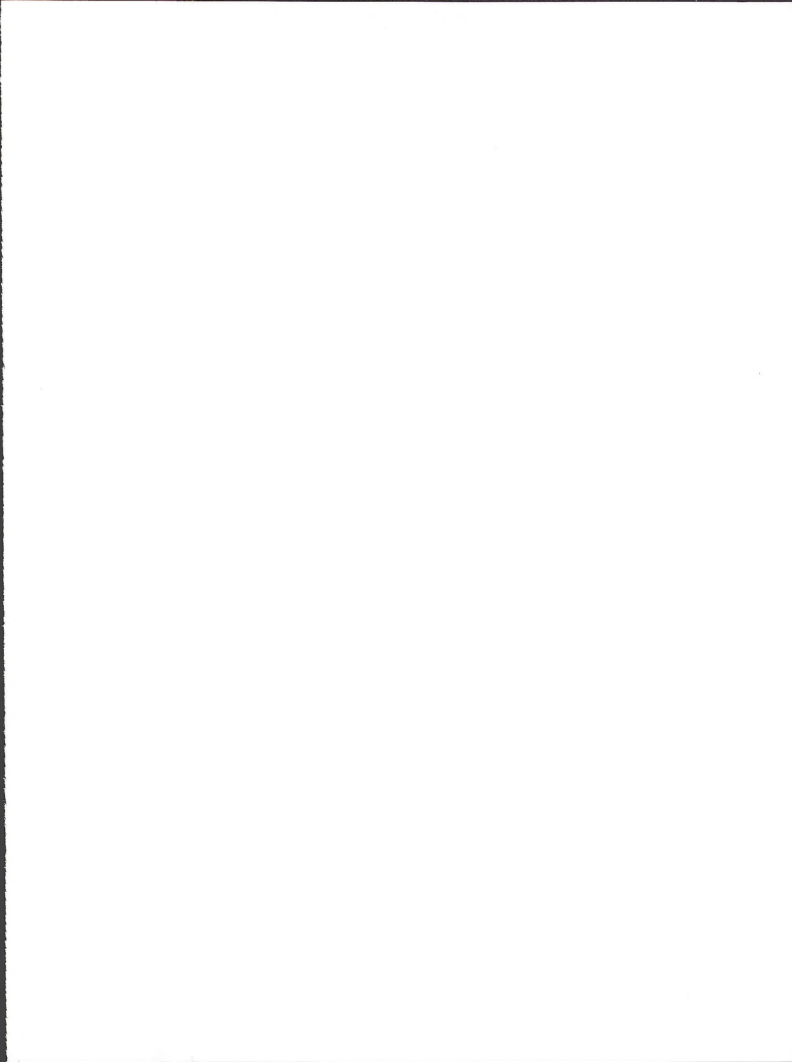
- 13.61 As stated, this is a Forest Service (Ashley National Forest) required measure.

- 13.62 Even though mitigating measures developed in the construction plan would be similar and unilaterally applied on federal, state, and private lands, separate plans will be required by both the State of Wyoming and the State of Utah to acknowledge specific measures as required by each state.

- 13.63 The term "density similar to the preconstruction soil condition" is used in the first measure to ensure no voids will occur in the pipeline trench fill and to prevent excessive subsidence even in roughland areas. The last measure, on page A2-17, right column, pertains to surface grading and the slight crown left over the trench for natural subsidence. In cropland areas, especially irrigated cropland, the trench fill will need to be compacted so the crown can be smoothed to match the bordering area to allow for surface irrigation.

- 13.64 This measure presently states: "construction areas will be contoured upon completion of construction to resemble the original grade as nearly as possible as agreed to by the authorizing officer in consultation with Chevron." This allows opportunity for specific on-site consultation between the authorizing officer and Chevron to determine compliance and the degree of practicality.

- 13.65 The text has been revised to incorporate this comment. Please refer to the Errata Summary.



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 14



United States Department of the Interior

BUREAU OF MINES

P. O. BOX 25086

BUILDING 20, DENVER FEDERAL CENTER

DENVER, COLORADO 80225

Intermountain Field Operations Center

March 11, 1983

Your reference:
1792 (D-490)
Chevron

Memorandum

To: Richard E. Traylor, Project Leader, Bureau of Land Management,
Division of EIS Services, 555 Zang Street, First Floor East,
Denver, Colorado 80228

From: Acting Chief, Intermountain Field Operations Center.

Subject: Review of draft environmental statement, Chevron Phosphate Project,
Uintah and Daggett Counties, Utah, and Sweetwater County, Wyoming

The subject document assesses the environmental impacts of the proposed Chevron Phosphate Project. The project would include a phosphate plant complex to be located near Rock Springs, Wyoming; a slurry pipeline extending to the plant site from an existing phosphate mine near Vernal, Utah; a processing-water pipeline extending from the Green River to the plant; a railway spur; and related facilities.

14.1

The subject document does not assess adequately potential conflicts between the proposed project and mineral deposits or mineral recovery operations. In places, the proposed and alternate rights of way for electrical transmission lines and pipelines do not parallel existing roads or pipelines. The document should indicate whether such rights of way cross known mineral deposits or interfere with mineral related industries. An example is the proposed electrical transmission line that would extend westwardly from the proposed fertilizer plant site. The proposed right of way would cross an area containing several inactive surface and underground coal mines; however, only two are shown on Map 1-2. The proposed right of way for the slurry pipeline also would cross the same area about 2.5 miles farther south. Accordingly, we recommend that future versions of the document include a

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

14.1
(Cont.)

mmp showing the location of all proposed facilities, including alternate rights of way, as well as known mineral deposits, oil and gas fields, pipelines, mines, and other mineral related industries. We also recommend that a discussion of potential conflicts between the proposed project and the mineral resources and industry in the area be included.

Donald P. Blasko

Donald P. Blasko



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Response to Comment Letter 14

- 14.1 Having a utility line cross a potential area of mineral resources does not preclude recovering that resource. It is relatively easy for the applicant's right-of-way to be changed within the study corridor and this will be determined by the landowner or land management agency when said right-of-way is granted.

It is the BLM policy to discuss the location of large facilities (strip mines, spoil piles, etc.) where the potential exists to preclude the recovery of a resource; however, this is generally not done for a right-of-way since it would not preclude the recovery of the mineral resource.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 15



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Rec'd

Centers for Disease Control

Atlanta GA 30333

(404) 452-4095

March 10, 1983

Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, Colorado 80228

Dear Mr. Traylor:

We have reviewed the Draft Environmental Impact State (EIS) for the Chevron - Phosphate Project near Rock Springs, Wyoming. We are responding on behalf of the U.S. Public Health Service and are offering the following comments for your consideration in preparing the final document.

We understand that the purpose of the EIS is to evaluate the impacts associated with the phosphate fertilizer plant complex, a phosphate slurry pipeline from Vernal, Utah, to the plant, a process water pipeline and water supply, a railroad spur and road relocation, a microwave communication system, and an electrical power system.

Other than the phosphate slurry pipeline which conflicts with both the BLM Vernal District Management Framework Plan and the Red Creek Watershed Plan, we agree that land use impacts and adverse environmental effects should be minimized with effective implementation and enforcement of the mitigation measures (Section 4.8.1, page 4-58 and 4-59) and the "Required General Federal Measures, Reclamation Procedures, and Chevron Standard Construction and Operation Procedures . . ." (Appendix 2, pages A2-1 to A2-22).

- 15.1 In the discussion of rupture and spills, we note that no attempt was made to predict where or if a spill may occur. In addition to the discussion on the three general areas (Green River Spill, Flat Land Spill and Steep Sideslope Spill) of probability, the probability of a spill occurring along the pipeline route should be addressed. Has the effect of any possible faults and seismic activities in the area been considered in the location of the pipelines and other plant facilities?
- 15.2 The health and safety aspects of the plant complex and rights-of-way appear to have been satisfactorily addressed. Since this facility will be producing fugitive dust and a gypsum slurry containing "small amounts" of radionuclides and heavy metals, a monitoring program of local onsite drainage courses, seepage areas, and local indoor and outdoor air quality should be conducted. This program could help prevent unnecessary exposure of the work force and the local public from any potentially harmful agents.

We appreciate the opportunity to review this Draft EIS. Please send us one copy of the final document when it becomes available. Should you have any questions about our comments above, please contact Mr. Robert L. Kay, Jr., or me at FTS 236-6649 or 236-4096, respectively.

Sincerely yours,

Frank S. Lisella, Ph.D.
Chief, Environmental Affairs Groups
Environmental Health Services Division
Center for Environmental Health

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 15

- 15.1 No attempt was made to determine the probability of a spill; rather, it was assumed that a spill would occur. A worst-case probability was analyzed in the draft EIS. If a spill occurred, the impacts would be no worse than those described.

Due to the structural control in the project area, it is necessary to cross several fault zones. This has been considered by the applicant.

- 15.2 The monitoring programs and mitigations listed in the ISA permit are included in the EIS (Appendix 1) and address this comment.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 16



MID-AMERICA PIPELINE COMPANY

a subsidiary of mapco inc.

March 10, 1983

Mr. Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, Colorado 80228

Dear Mr. Traylor:

We have reviewed the Draft Environmental Impact Statement for the Chevron Phosphate Project.

Insofar as the routing for the Phosphate Slurry pipeline is concerned, we offer the following comments:

The MAPCO alternative and the Willow Creek alternative include a routing through Jesse Ewing Canyon.

As noted in the Draft EIS, we have a pipeline, the MAPCO pipeline, in this canyon. Our pipeline is a 12-3/4" O. D. steel pipeline transporting natural gas liquids from gas processing plants in the Overthrust producing area to West Texas.

Having laid our pipeline in Jesse Ewing Canyon, we are very familiar with the problems associated with installing a pipeline there. Such an effort is extremely difficult, time consuming, dangerous and expensive. Although we had no grade restraints for our pipeline, the grade restraints inherent in a slurry pipeline would make the problems for such a pipeline much worse. Some of the difficulties anticipated are discussed in the section on the MAPCO alternative on the left side of page 4-50 of the Draft EIS.

We are very concerned about the risk of damage to our pipeline that would occur if the slurry pipeline was installed in the canyon. Because of the grade restraints, the slurry pipeline would generally have to be installed above our pipeline and across very steep slopes. This would require extensive excavation and side hill cutting resulting in large quantities of rock and excavated material falling down slope on our pipeline and the road. The risk of damage to our pipeline from blasting that would be required is well noted in the above cited reference.

If our pipeline should be damaged and have to be shut down, the plants producing the natural gas liquids would have to store these liquids. The plants have storage for approximately 24 hours production only. If our pipeline was shut down for a longer period than the storage capability of the

1800 SOUTH BALTIMORE AVENUE TULSA, OKLAHOMA 74119 (918) 584-4471

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Page 2 - Mr. Richard E. Traylor - March 11, 1983

plants, the plants would have to shut down, and the gas wells feeding the plants would have to be shut in.

- 16.1 We note that Table 4-31 on page 4-55 concerning the MAPCO, Willow Creek and Northwest alternatives omits reference to slopes greater than 15% in Jesse Ewing Canyon. We note also that reference to unfavorable soils properties across Clay Basin (MP 40.5 M ± to MP 47.5 M ± - 7 miles) except for 2 short sections totaling 0.3 miles is omitted in this table. Clay Basin is included within Red Creek Watershed ACEC. Disturbance of the soil across Clay Basin would contribute sediment to Red Creek, Red Creek Canyon and the Green River.
- 16.2 The comparative analysis on page 2-7 also omits mention of the sediment contribution from Clay Basin for the MAPCO alternative. The discussion on water resources on page 2-7 does not recognize that this sediment contribution to Red Creek would reduce the water quality in Red Creek Canyon for the MAPCO alternative.

We think the information contained in the Draft EIS overwhelmingly supports the selection of the routing of the slurry pipeline through Red Creek Canyon rather than through Jesse Ewing Canyon (MAPCO alternative) through Willow Creek (Willow Creek alternative) or the Northwest alternative. This opinion is based on a comparison of the consequences to:

Water Resources	-	see page 4-6 vs. page 4-9,
Transportation	-	see page 4-18 vs. page 4-50,
Wildlife	-	see Table 4-21 (page 4-24)
		vs. Table 4-29 (page 4-51),
Visual Resources	-	see Table 4-22 (page 4-28)
		vs. Table 4-30 (page 4-52)
		and page 4-30 vs. pages 4-51 & 4-52,
Land Use Plans	-	see page 4-30 vs. pages 4-52 & 4-53,
Soils & Vegetation	-	see Table 4-23 (page 4-35) vs. Table 4-31 (pages 4-55 & 4-56 and pages 4-34, 4-35 & 4-38 vs. pages 4-54, 4-56 & 4-57,

and a comparison of unavoidable adverse impacts relative to transportation (page 4-60) wildlife (page 4-60) and visual resources (pages 4-61 & 4-62).

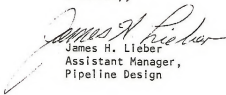
We appreciate the opportunity to comment on the Draft EIS. Overall we think it is a good document.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Page 3 - Mr. Richard E. Traylor - March 11, 1993

Please let me know if you wish to discuss any of our comments.

Sincerely,



James H. Lieber
Assistant Manager,
Pipeline Design

JHL:pm

cc: File: Location Code 42-05-09-15
Location Code 42-05-09-16

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 16

- 16.1 The Northwest alternative does not cross Jesse Ewing Canyon; therefore, reference is not made to this alternative for the Jesse Ewing Issue area. Slope reference for the Willow Creek alternative is accurately identified in Table 4-31 (MP 39.8 to MP 41.1). Reference to areas with slopes greater than 15 percent (MP 31.1 to MP 40.5) for the MAPCO alternative through Jesse Ewing Canyon issue area was omitted in printing. Correction is made in the Errata Summary.

Soils within MP 40.5 to MP 47.5, with the exception of the areas identified in Table 4-31, were determined generally to be not unfavorable (refer to Table 4-31 footnotes, for parameters determining unfavorable soils).

Refer to page 4-34, right-hand column, paragraph 2, of the draft EIS for discussion of unfavorable soils and susceptibility to erosion. Nearly all soils are subject to erosion when disturbed and not protected by effective erosion control measures. The unfavorable soils are most susceptible to erosion and require more intensive erosion control and reclamation measures.

- 16.2 Both the proposed action route and the MAPCO alternative alignment would contribute a small amount of sediment to Red Creek from Clay Basin. The Comparative Analysis only focuses on the differences, not the similarities.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 17

216

March 13, 1983

Richard E. Traylor, Project Leader
Bureau of Land Management
Division of RIS Services
555 Zang Street, First Floor East
Denver, Colorado 80228

Dear Sir:

With reference to the Chevron Phosphate Slurry Line, we wish to voice our objection to having the line turn west at the junction of the road leading to the Jarvis Ranch. This would create another unsightly scar visible from the Green River which on numerous occasions the Park Service refers to as "unobtrusive sights". Furthermore, we don't need a scar running along the base of Mountain Home.

When the MAPCO Pipeline was put in, the BLM felt it inadvisable to allow a "Cat" to drop its blade to fix an alternate road into Brown's Park in case Jesse Ewing Canyon was closed. We agree with the BLM that the ecology of Red Creek Canyon is very fragile. Disturbing the surface for a pipeline trench would be disastrous. It would contribute considerably to the sediment content of the Green River whenever there is a storm or runoff. This problem has been a real concern in several studies in the past. We see no reason at all to scar this scenic canyon.

17.1

We are not objecting to the pipeline itself. We realize that "progress" must be served. However, we feel strongly that this can be done without creating havoc. It would seem better to use Jesse Ewing Canyon and continue to parallel the MAPCO Pipeline as much as possible. This area has already been disrupted. Let's keep our problems in as small an area as possible and preserve the integrity of this area.

As for the road being blocked for short periods of time, we have lived through this before and we can again, but we feel this is a minor issue compared to the permanent damage which would result if Red Creek Canyon were disturbed. However, we would appreciate notification of blockage so that we can plan around it.

Thank you for your consideration.

Sincerely yours,

William D. Fleming
Lucille M. Fleming

William D. & Lucille M. Fleming
Brown's Park, UT Route
Maybell, CO 81640

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Response to Comment Letter 17

- 17.1 Thank you for your comment; a mitigation measure has been added and is noted in the Errata Summary.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 18



United States Department of the Interior

BUREAU OF RECLAMATION
UPPER COLORADO REGIONAL OFFICE
P.O. BOX 11568
SALT LAKE CITY, UTAH 84147

IN REPLY
REFER TO: UC-150

120.1

MAR 15 1983

Memorandum

To: Project Leader, Bureau of Land Management, Division of EIS Services,
555 Zang Street, First Floor East, Denver, Colorado 80228

From: *Acting* Regional Director
Bureau of Reclamation

Subject: Review of Draft Environmental Impact Statement - Chevron Phosphate Project

We have reviewed the subject draft environmental impact statement and have the following comments:

General

The proposed water intake structure at Davis Bottom is within the Flaming Gorge Unit, Colorado River Storage Project. If this structure is built below the elevation of 6,045.0 feet Mean Sea Level, Chevron will be required to obtain a Grant of Right-of-Way from the Bureau of Reclamation, Upper Colorado Regional Office, Salt Lake City, Utah.

- 18.1 | The discussion of the slurry water supply (tailings pond) needs to be expanded to verify that the existing water supply for the Vernal phosphate mine is sufficient to provide the 1,290 acre-feet per year needed to adequately carry the phosphate.

Chevron has a water right for 5 ft³/s (Application No. 39489) from existing wells that is used in the current mining operation. This flow rate amounts to 3,620 acre-feet per year. It is our understanding that there is presently a net consumption of water of up to 1,000 gallons per minute. This rate constitutes approximately 1,600 acre-feet; thus it appears that there is about 2,000 acre-feet available for the slurry pipeline. This is more than enough to satisfy the projected requirements.

- 18.2 | The draft environmental impact statement indicates that the project would increase the salinity concentration at Imperial Dam by approximately one mg/L. Using a present quality on the Green River of 400 mg/L and the depletion figure of 22,500 acre-feet, we would estimate an increase of 1.9 mg/L. The assumptions used in the BLM salinity estimates should be cited.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

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- 18.3 In addition, it should be pointed out that if saline water from the Big Sandy River Unit is used, as described on page 1-35 of the draft, an actual decrease of salinity at Imperial Dam would occur. This is later pointed out on page 4-49, but could also be indicated on page 4-6. The ultimate long-term storage of salts and other wastes at the phosphate plant complex should be discussed.

Specific

- 18.4 Summary Page 2 - The statement is made that the proposed action would result in a depletion of the Green River of 0.49 percent. Based on a 30-year flow average at Green River, Wyoming, of 1,222,000 acre-feet, the depletion of 22,500 acre-feet would represent a 1.8 percent reduction. The difference may be due to use of different periods of records or use of different gages on the Green River.
- 18.5 Page 1-24 - The statement is made that the water intake structure on the Green River at Davis Bottom would withdraw approximately 3 ft³/s of water and would provide 11,310 acre-feet of water per year. The 3 ft³/s would only provide approximately 2,200 acre-feet. The discrepancy should be explained.
- Page 1-25, Figure 1-3 - Water Intake Structure Plot Plan - It would be helpful if the Mean Sea Level elevations could be plotted.
- 18.6 Page 1-35 - Change the last sentence, second paragraph, to read: "The State of Wyoming also assisted in writing and reviewing a joint planning report submitted to the Wyoming Legislature in January 1983."
- 18.7 Schedule dates for the Big Sandy Salinity Control Unit should be revised as follows: Plan Formulation Working Document - March 1983; Proposed Regional Director's Report and Advance Draft EIS - November 1983; Report and Draft EIS filed with EPA - June 1984; and Planning Report and Final EIS - March 1985.
- 18.8 The salinity control unit would supply 12,000 acre-feet rather than the 14,400 acre-feet cited.
- The reservoir on the Big Sandy River mentioned on page 1-35 is apparently not feasible and will not be discussed in detail in Reclamation's environmental analysis.
- 18.9 Page 3-29, Vegetation - The Uinta Basin Hookless Cactus (*Sclerocactus glaucus*) is a listed threatened species that is known to occur in Uintah County, Utah, which is in the general vicinity of the phosphate mine. It appears that this species should be discussed.
- 18.10 Page 4-6 - Reclamation has updated the \$472,000 per mg/L increase to \$513,000 to reflect January 1982 conditions.
- 18.11 Page 4-49 - The recommended plan of the Big Sandy River Unit would furnish 12,000 acre-feet rather than 21,740. It would remove 74,800 tons of salt annually rather than 78,000, and it would result in a net reduction of salinity at Imperial Dam of 7.9 mg/l rather than 6.7.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

3

18.12 | Table 2-5 - Water quality impacts are shown in mg/L increases. Does this mean sediment increase?

If you have any questions concerning these comments, please contact Harold Sersland of this office (Phone FTS 588-5580).



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 18

- 18.1 Because there is considerably more than 1,290 acre-feet per year of water running through Chevron's existing tailings pond, no further discussion was deemed necessary. There would be enough water to adequately carry the phosphate.
- 18.2 As explained, the Colorado River Simulation System was used as a basis for our assumptions, and the results determined that approximately 1 mg/l increase would occur. This is an approximate average based upon predicted hydrology and use. This may account for the about 1 mg/l to 1.9 mg/l discrepancy.
- 18.3 Refer to the Errata Summary for revision.
- 18.4 The difference is based on the use of the gauge at Green River, Utah.
- 18.5 Refer to the Errata Summary for revision.
- 18.6 At the time the draft EIS was published, no planning report had been submitted to the Wyoming legislature. Therefore, the draft was correct at the time it was printed.
- 18.7 Thank you for this new information. These dates have been revised to reflect your comment. Refer to the Errata Summary.
- 18.8 Refer to the Errata Summary for revision.
- 18.9 The phosphate mine is an existing mine. In addition to this, the Uinta Hookless Cactus (*Sclerocactus glaucus*) does not occur within the mine area.
- 18.10 Refer to response to Comment 12.13.
- 18.11 Please refer to Errata Summary for applicable revisions.
- 18.12 Please refer to response to Comment 9.9.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES
Comment Letter 19

STATE OF COLORADO

Department of Local Affairs

DIVISION OF LOCAL GOVERNMENT

Pat Ratliff, Director



Richard D. Lamm
Governor

March 14, 1983

Mr. Richard E. Traylor
Project Leader
Bureau of Land Management
Division of EIS Services
First Floor East
555 Zang Street
Denver, Colorado 80228

SUBJECT: Draft Environmental Impact Statement
Chevron Phosphate Project

Dear Mr. Traylor:

The Colorado Clearinghouse has received the above-referenced Draft Environmental Impact Statement and has distributed it to interested state agencies. Comments received from the Colorado Division of Wildlife, Colorado Department of Social Services and the Department of Health/Air Pollution Control Division are enclosed for your information.

Thank you for the opportunity to review this matter.

Sincerely,

S. O. Ellis /s/

Stephen O. Ellis
Chief Planner

SE/PN/vt
Enclosures

cc: Office of the Governor
Department of Natural Resources
Department of Social Services
Department of Health

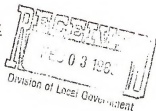
1313 Sherman Street, Room 520, Denver, Colorado 80203 (303) 866-2156

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

STATE OF COLORADO
Richard D. Lamm, Governor
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE
Jack R. Grieb, Director
8060 Broadway
Denver, Colorado 80216 (825-1192)



MEMORANDUM



TO: Steve Ellis
Colorado State Clearinghouse

FROM: Al Whitaker *AW*
Wildlife Program Specialist

SUBJECT: Chevron Phosphate Project

DATE: February 1, 1983

In reviewing the above-referenced project, we note that the Colorado routing alternative has been eliminated from consideration. We do not feel this project will impact the state's wildlife resources.

ag

cc: Jim Morris

DEPARTMENT OF NATURAL RESOURCES, Monte Pascoe, Executive Director • WILDLIFE COMMISSION, James T. Smith, Chairman
Richard Dibelbiss, Vice Chairman • James C. Kennedy, Secretary • Sam Caudill, Member • Donald Fernandez, Member
Michael Higbee, Member • Wilbur Redden, Member • Jean K. Tool, Member

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES



RICHARD D. LAMM
GOVERNOR

State of Colorado

DEPARTMENT OF SOCIAL SERVICES

1575 SHERMAN STREET
DENVER, COLORADO 80203

George S. Goldstein, Ph.
Executive Director

M E M O R A N D U M

TO: Stephen O. Ellis
State Clearinghouse

FROM: Shirley Johnson *MA*
A-95 Coordinator

DATE: February 4, 1983

SUBJECT: Minor Action EIS #83-102
Chevron Phosphate Project



Thank you for sending, at my request, a copy of the Chevron Phosphate Project DEIS for this department to review. Due to the location of the project, our staff have determined that there will not be a great impact on social services in the state of Colorado; therefore, we have no comments to make.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

COLORADO DEPARTMENT OF HEALTH Air Pollution Control Division

17 February 1983



To: Colorado Clearinghouse; Office of Health Protection

From: Air Pollution Control Division

Subject: DEIS #83-102 Chevron Phosphate Project

19.1

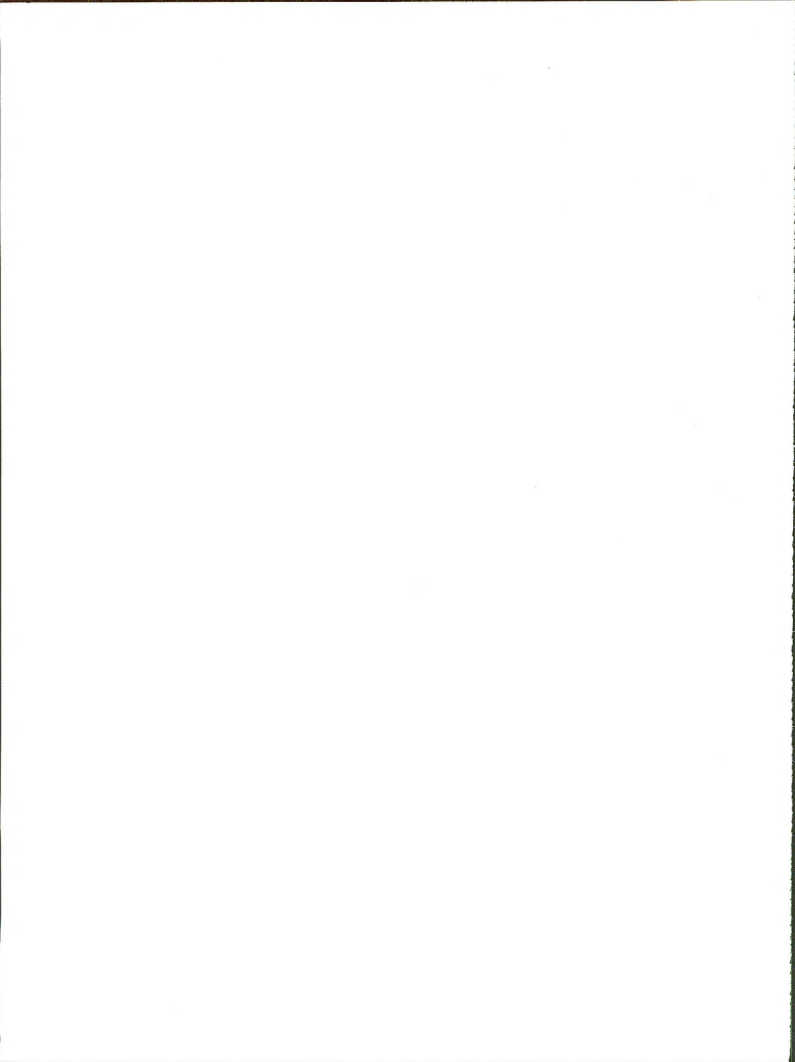
The Air Pollution Control Division would like to see an estimate of the project's air quality impact on Colorado Class II and Colorado Class I and Category 1 (Dinosaur) areas for all criteria pollutants. The Division notes that the proposed plant site near Rock Springs, Wyoming and the mine site in Vernal, Utah are within 30 miles and 20 miles, respectively, from the Colorado border.

The Division treats Colorado Category 1 areas the same as Federal PSD with respect to incremental standards for SO_2 .

In addition, we would like to point out that Class II background levels for TSP and SO_2 in the Moffat county (Wyoming border) areas are about twice the background levels specified in the DEIS near the plant complex. It would be helpful if the DEIS included distances to points of maximum concentrations for various pollutants referenced in Table 4-16.

The Air Pollution Control Division appreciates this opportunity to comment. If there are any questions, please contact John Plog at 320-4180.

KQ/JP/cl



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Response to Comment Letter 19

- 19.1 The plant site modeling did not show an area of impact anywhere near Colorado. The construction of ancillary facilities would have no significant impact on Class II areas of Colorado. The mine in Vernal was not considered to be a part of this project.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 20



SCOTT M. MATHESON
GOVERNOR

STATE OF UTAH
OFFICE OF THE GOVERNOR
SALT LAKE CITY
84114

March 15, 1983

Mr. Richard E. Traylor, Project Leader
Division of EIS Services
Bureau of Land Management
555 Zang Street, First Floor East
Denver, CO 80228

Dear Mr. Traylor:

This letter and enclosure constitute the official comments of the state of Utah relative to the Draft Environmental Impact Statement on the Chevron Phosphate Project prepared by the Bureau of Land Management, Department of the Interior, and the Office of Industrial Siting Administration, state of Wyoming.

We appreciate the opportunity to review the Draft Environmental Impact Statement. The issues and concerns expressed in the enclosed comments need careful consideration as well as appropriate action to address them in the final Environmental Impact Statement.

Should you have further questions regarding these comments, please feel free to contact Lorin P. Nielsen, Associate Director for Energy and Minerals, Department of Natural Resources, 1636 West North Temple, Salt Lake City, UT 84116, (801) 533-5356.

Sincerely,

Governor

SMM:tar

Enclosure

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

March 15, 1983

COMMENTS OF THE STATE OF UTAH
ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT ON THE
CHEVRON PHOSPHATE PROJECT

Public Water Supply Facilities

- 20.1 Total solids (TDS) concentration in the Green River could be increased by a maximum of 20 milligrams per liter. Because Green River Town uses the Green River as its only source of culinary water, its water quality would be degraded.

Water Pollution Control

- 20.2 Adequate discussion and provisions need to be made in the EIS should a spill or rupture of the pipeline occur in the drainage of smaller streams such as Brush Creek. Items such as catch basins and diversions should be provided in the pipeline design as it crosses waterways smaller and more sensitive than the Green River.

Geologic Considerations

- 20.3 There is no section on geology in the EIS. Therefore, we are unable to evaluate the possibility of geologic hazards such as faulting or slope failures. In Appendix 7, Page A7-2 of the EIS, it was stated that "data were analyzed and evaluated to identify areas subject to slides, rockfall, and mass movement." However, no reference to these areas was made within the text. Therefore, further evaluation is not possible.

Water Rights and Water Supply

The state engineer has scheduled a hearing on the application of Chevron, No. A57345 (45-4981), to appropriate 5.01 cubic feet per second or 3,620 acre-feet of water per year from the tailing ponds to cover the use associated with the slurry pipeline. The state engineer needs to make two determinations

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

2

in this matter: (1) the use of the water is different from the present use, therefore, constituting a new use; and (2) under the Utah water law, whenever water is exported out of the state of Utah, the state engineering must evaluate and make public the advantages to the state and citizens for exporting the water. The hearing will gather information on both of these items, and the determination of the state engineer will be forwarded under separate cover.

20.4 | On Page 1-10, Table 1-2, the Utah State Engineer's Office and the Utah Division of Water Rights, should be combined as the Utah Division of Water Rights.

20.5 | On Page 1-10, certificate to appropriate water should be changed to read application to appropriate water.

20.6 | On Page 1-34, Section 1.6, Jensen Slurry Water Supply Alternatives, Colorado State Engineer should be changed to Utah State Engineer.

Wildlife Concerns

20.7 | Construction, Location, and Timing: Solitary potential roosting trees, cottonwoods or ponderosa pines that are located at any of the proposed river crossings and intake structures, need to be protected to provide wintering habitat for northern bald eagles.

20.8 | Activity in the Rye Grass Draw area should be restricted from June 1 through June 14 due to significant elk calving.

20.9 | Around May 30, the area from Pipeline Mile 45 in Red Creek to the Utah/Wyoming border at Richard's Gap needs to be protected and minimal work done due to antelope fawning in this area of Clay Basin.

20.10 | The Frank Myers sage grouse strutting ground is located within one mile of the proposed pipeline corridor. Because of the hatching and forage

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

3

20.10
(Cont.)

requirements for young birds in the Red Creek wet meadow of the West Clay Basin, it is recommended that construction of this segment of the pipeline be postponed until after September 15 when both the antelope and sage grouse will have switched to a winter diet and moved away from Red Creek. In any case

20.11

reclamation requirements to return this site to its former productivity of forbs and some sagebrush would entail immediate fall seeding of the right-of-way to replace and/or improve the wet meadow type. If this is done in sequence, plants needed by antelope and sage grouse should be available to them the following spring.

20.12

Proper reclamation plans should be developed to restore vegetation to disturbed sites. Plant species should be selected for their ability to provide watershed control, forage to wildlife, adaptability, and reproductive potential for the site selected. The Utah Division of Wildlife Resources should, along with the Bureau of Land Management, review the construction operation plan provided by Chevron to ensure that adequate site-specific stipulations for revegetation and reforestation will occur to the satisfaction of the state of Utah.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 20

- 20.1 Correct, the quality of water would degrade at Green River, Utah. However, the 20 mg/l figure cited would be at the mouth of the Green River. It would likely be somewhat less at Green River, Utah, due to the inflow of lower quality water downstream from Green River, Utah.

It should be pointed out that the Chevron proposal would only be responsible for approximately 1 mg/l. The other 19 mg/l represent a worst-case upper basin development scenario.

- 20.2 Refer to response to Comment 7.1.

- 20.3 These (geologic) parameters were used to determine best rights-of-way and construction problems. They do not appear in the EIS because they eliminated or added certain routes of partial alignments. However, some discussion is found in the Water Resources and Soils sections of the draft EIS.

A discussion on faults was not included because all pipeline alignments would cross the same relatively inactive fault zones.

- 20.4 The text has been revised to reflect these
20.5 comments. Please refer to the Errata Summary
20.6 for changes.

- 20.7 There are no known roost trees located at any of the proposed river crossings or intake structure sites. If any exist, they must be protected.

- 20.8 Refer to new mitigation measure identified in the Errata Summary for page 4-59 of the draft EIS.

- 20.9 Refer to new mitigation measure identified in the Errata Summary for page 4-59 of the draft EIS.

- 20.10 Refer to new mitigation measure identified in the Errata Summary for page 4-59 of the draft EIS.

- 20.11 The concerns noted in these comments are
20.12 discussed and acknowledged in the following sections in the draft EIS.

— Section A2.2.5, Revegetation (Re seeding and Planting), page A2-19.

— Section A2.2, Required Reclamation and Erosion Control Procedures, pages A2-15 and A2-16, Items 1, 2, 3, 4, 5, 6 and 7. (Items 1 and 4 specifically acknowledge this comment.)

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 21



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
1860 LINCOLN STREET
DENVER, COLORADO 80295-0699

MAR 15 1983

Ref: RPM-EA

Maxwell T. Lieurance, State Director
USDI, Bureau of Land Management
P.O. Box 1828
2515 Warren Avenue
Cheyenne, Wyoming 82001

3/17/83

ROUTING	INITIAL/DATE	E&M
SD		RES
ASD		ADMIN
SASD		CF
ECO		LEAD RESP
OPA		

Dear Mr. Lieurance:

EPA Region VIII has reviewed the draft environmental impact statement (DEIS) for the Chevron Phosphate Project. In general, the Draft EIS is well prepared and covers most of the environmental issues in a satisfactory manner.

EPA has three areas of concern that need further discussion. Although the use of water from the Big Sandy salinity control project is admitted as a possibility, the EIS has not thoroughly explained what the prospects for such use are. EPA favors use of this water as environmentally preferable to direct diversions from the Green River. We also have some concerns regarding the water and air quality analyses done in the draft EIS. The detailed comments are attached for your consideration.

Based on the system EPA uses for rating EISs under it review, we have categorized this DEIS as LO-2. This means that EPA has no objection to the project, but we feel strongly that the areas identified need more discussion. Our principal concern is that the environmentally preferable Big Sandy Unit water supply be more fully pursued.

I hope that these comments will be useful in your deliberations on this project. Please contact Mike Gansecki of my staff (FTS 327-4831) for further assistance from this office.

Sincerely yours,

Steven J. Durham
Steven J. Durham
Regional Administrator

Enclosure

103 MAR 17 AM 9 00
U.S. ENVIRONMENTAL PROTECTION AGENCY
CHEYENNE, WY 82001

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

DETAILED COMMENTS OF THE ENVIRONMENTAL PROTECTION AGENCY ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE CHEVRON PHOSPHATE PROJECT

21.1 1. Project Alternatives- Big Sandy Unit Water Supply

The major deficiency of the draft environmental impact statement for the Chevron Phosphate Project is the failure to fully evaluate the alternative water supply from the Big Sandy Unit. The document briefly identifies the alternative on page 1-35, but the evaluations are not carried through in the environmental consequences section. This deficiency exists despite the following statement in the summary discussion (page S-5), "However, if water from the Big Sandy Colorado River Quality Improvement Program becomes available prior to construction, this alternative would be preferred."

EPA suggests that the use of saline water from Big Sandy for the proposed phosphate plant may be an environmentally preferable alternative for a water supply source. Use of Big Sandy water would be consistent with the policy of the seven Colorado River Basin States as expressed by the Colorado River Basin Salinity Control Forum in the Policy for Use of Brackish and/or Saline Water for Industrial Purposes (copy attached).

The impact analysis on page 4-49 simply refers to a forthcoming study to be developed by the U.S. Bureau of Reclamation for the project. Since the two projects may be closely coordinated in the future, this EIS should contain more detail regarding the proposal and potential impacts and benefits. For example, in discussions with USBR personnel, we understand that the Big Sandy water characteristics may be beneficial in the phosphate production process. A comparative analysis of the impacts from the Big Sandy water use versus direct Green River diversion should also be made.

21.2 On page 4-6 of the draft EIS, it is calculated that worst-case depletion of water from the Green River for this plant would result in a 1 mg/liter increase in salinity at Imperial Dam. For a single industrial plant operation in the Colorado River basin, this is a significant impact affecting downstream users and salinity control efforts. This figure should be compared with the potential use of the Big Sandy water once the salinity control unit is in place. Some assessment of pipeline impacts from the Big Sandy River to the phosphate plant should also be briefly assessed.

21.3 Another important consideration is the timing of the construction of the fertilizer plant and the salinity control project. Our current understanding is that construction of the phosphate plant may be deferred for some time. An assessment of the timing needs for the Big Sandy water to be used at the plant should be included in the final EIS.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

-2-

21.4 2. Phosphate Plant Water Flow and Quality

The Draft EIS does not provide much detail regarding the disposition of waters reaching the phosphate plant from the phosphate rock slurry line and from natural storm runoff. As we understand the proposal, it is intended that the plant will be a "no-discharge" facility, with all plant effluents and area runoff discharged to the gypsum tailings pond.

Since this pond will be receiving storm runoff as well as plant wastes, it is necessary to insure that the ponds are adequately designed and operated to contain the maximum storm runoff. The recent spill at the Chevron Salt Lake City fertilizer plant operation is an example of how storm water can upset a "no-discharge" system.

21.5 More detail on the overall water balance through the plant would be useful. Contingency plans need to be developed for handling all plant waters during plant upsets and for worst-case situations involving major mechanical failure during a storm event. The final EIS should also address the issue of whether the very low pH gypsum-laden water entering the tailings pond will create any significant corrosion problems in the tailings pond.

21.6 3. Air Quality Analyses

Greater detail on the air quality analyses used to predict the project impacts is needed in the final EIS. Some explanation is needed as to why the VALLEY and ISCST models were used concurrently. If the terrain is complex enough to warrant the use of the VALLEY model, then the ISCST model is not appropriate. If the ISCST model is preferred, this model should be used for all pollutants including modeling of short-term impacts.

21.7 Impact concentrations for the Class I analysis should also be provided. The choice of the meteorological conditions used for the short-term analyses should also be described. In order to understand the complete air quality analysis, we also need to know the stack parameters and how area sources were taken into account. The final EIS should also present the "worst-case" assumptions used in the visibility analysis.

21.8 The EIS does not address whether the proposed acid plant, phosphate rock processing plant, and fertilizer production plant will be required to meet New Source Performance Standards defined under the Code of Federal Regulations (40 CFR Part 60). These are now administered by the States of Utah and Wyoming. The final EIS should contain an acknowledgement that these regulations can and will be met.

21.9 4. Hazardous Waste Determinations

The draft EIS notes in Appendix A2-15 that EPA currently has jurisdiction regarding permits for disposal of hazardous wastes in Wyoming. While the project does not fall under standard industrial processes known to generate hazardous wastes (40 CFR Part 261.32), the final EIS should explain whether current information suggests the likelihood of hazardous wastes from this plant. EPA staff will be willing to assist Chevron or the BLM in evaluating the potential for toxic wastes.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 21

21.1 Because the Big Sandy Project is still in a planning stage, its reference in the draft EIS is cited as the "forthcoming study." The EIS contains an analysis of Big Sandy water use versus other water use. On page 4-49, the impacts of using Big Sandy Water are discussed. These can be compared with those of the other alternatives, pages 4-5 to 4-8. This will give the desired effect.

"Deferred" plant construction is speculative.

21.3 Because the time schedule for the Big Sandy Project is, at best, tentative, an assessment of timing needs is unfeasible. It should be kept in mind that the Big Sandy project has yet to be authorized by Congress.

21.4 It is the role of the State regulatory authority to evaluate the design of the gypsum pond; in this case, the Wyoming Department of Environmental Quality, Water Quality Division, and State Engineer. For more information on this, refer to responses to Comments 9.5 and 9.6.

21.5 Refer to responses to Comments 9.5, 9.6, and 21.4.

21.6 Only the most conservative (highest) modeled concentrations were identified in Table 4-16 of the EIS. Annual NO_x , SO_2 , and TSP values were run on both CDMW and long term VALLEY. Short term SO_2 , TSP, and F values were run on both ISCST and short term VALLEY. A full description of the modeling is contained in Chevron's application to the WDEQ-Air Quality Division on August 12, 1982.

21.7 The Wyoming Air Quality Division does not consider any impact under one microgram per cubic meter to be significant. Modeling results predicted less than one microgram of impact within several miles of the plant complex in all cases, for all modeled pollutants. There will be no impact on any Class I area.

Modeling parameters are too voluminous to be included in the EIS. The commenter is referred to Chevron's application to the WDEQ-Air Quality Division of August 12, 1982 for the specifics of the modeling.

21.8 The fertilizer plant will be required to meet all applicable NSPS by the Wyoming Air Quality Division, at minimum. More stringent

requirements could even be considered after a thorough BACT analysis is made.

21.9 Current information states that no hazardous wastes will be required for the plant process, nor generated from the plant. However, as detailed plans are developed and permits applied for, ISA will analyze the potential for hazardous waste generation and disposal.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 22



United States
Department of
Agriculture

Forest
Service

Reply to: 1950

Date: MAR 18 1983

Mr. Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor
Denver, Colorado 80228

Dear Mr. Traylor:


Thank you for the opportunity to review the Draft Environmental Impact Statement for the Phosphate Project proposed by Chevron Chemical Company (CHEVRON). Our review of the Statement prompted few comments, and they are, for the most part, requesting minor text charges. Overall, we would like to express our general satisfaction with the DEIS.

Our personnel of the Ashley National Forest in Utah have been actively involved in the CHEVRON EIS process from the initiation of scoping through the permission-to-print review of the DEIS. The Ashley carried out extensive reviews and made substantive comments on the EIS analysis prior to the printing of the DEIS. We submitted comments on the content of the DEIS to BLM, Division of EIS Services in Denver on September 15 and November 10, 1982. We also participated in the permission-to-print review held in Denver on December 2, 1982.

As is evidenced by our attached comments, active involvement and good coordination by the Ashley personnel, and general acceptance of applicable field data by the BLM produced an acceptable analysis.

Again, we appreciate the opportunity to review the DEIS. Our specific comments are attached.

Sincerely,


R. MAX PETERSON
Chief

Enclosures



FS-6200-11b (7/81)

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

FOREST SERVICE COMMENTS ON CHEVRON PHOSPHATE PROJECT DRAFT ENVIRONMENTAL IMPACT STATEMENT - FEBRUARY 25, 1983

Specific Comments

<u>PAGE</u>	<u>PARAGRAPH</u>
22.1	<p>S-5 <u>Agency Preferred Alternative</u></p> <p>The Agency Preferred Alternative needs to be revised to exclude the Big Sandy Unit and to include the Interstate (I-80) water intake system. It follows that the I-80 system would be analyzed in the Final EIS.</p>
22.2	<p>1-43' thru 1-46 <u>Tables 1-7 thru 1-10</u></p> <p>Should show chemicals constituents of phosphate slurry in a table. (Refer to ch. 4, p. 4-41, Wildlife)</p>
22.3	<p>2-2 thru 2-6 <u>Tables 2-3 thru 2-5</u></p> <p>Need a footnote explaining how "Normal" Winter Range relates to Yearlong Range; i.e., is "Normal" Winter Range part of Yearlong Range?</p>
22.4	<p>Need a footnote explaining what "Short-Term" and "Long-Term" equate to.</p>
22.5	<p>2-3 <u>Table 2-3</u></p> <p>We question why there are more Yearlong Range, Long-Term acres of Pronghorn Habitat for Davis Bottom than for Middle Firehole, when the reverse is shown for Short-Term losses. If Middle Firehole has more acres of short-term losses, then it should also have more acres of long-term losses due to the longer length of the route.</p>
22.6	<p>2-8 <u>Table 2-5 - Water Resources</u></p> <p>Footnote needed to explain that mg/l refers to suspended sediment loads in river.</p>
22.7	<p>3-23 <u>Land-Use Plans</u></p> <p>Need a paragraph on the Flaming Gorge National Recreation Area Management Plan. This plan also directs management of the Davis Bottom component of the Proposed Action.</p>

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

	<u>PAGE</u>	<u>PARAGRAPH</u>
22.8	4-6	<p><u>Water Resources, Plant Complex</u></p> <p>The total costs associated with the salinity increase of 11 mg/l at the Imperial Dam are not adequately displayed. Since these costs appear to exceed \$5 million annually, they might realistically be included in the socioeconomic analysis.</p>
22.9	4-5 and 4-6	<p><u>Water Resources, Plant Complex</u></p> <p>The deposition of airborne particulate matter into surface waters is not considered.</p>
22.10	4-6	<p><u>Davis Bottom Plant Process Water Pipeline</u></p> <p>We question if the intent of E.O. 11988 would be met by construction of the Davis Bottom water intake system. The intent of the E.O. is to prevent substantial threat of loss of property within floodplains as well as preventing adverse impacts on flood stages. The floodplain at Davis Bottom is affected by operations at both Fontenelle and Flaming Gorge Dams. The Davis Bottom floodplain site could be subject to periodic inundation. Such inundation could damage the water intake system, pump house, electric substation, power transmission line, and microwave tower proposed for this location. These facilities could not be protected from such periodic inundation.</p>
22.11	4-19 and 4-20	<p><u>Tables 4-15 and 4-16</u></p> <p>Need to explain relationship between Tables 4-15 and 4-16. The emission rates exceed the significant levels substantially (Table 4-15), but, when converted to 24-hour and annual pollutant concentrations, the predicted impact (with background) appears acceptable (Table 4-16). This needs clarification.</p>
22.12	4-23 thru 4-25	<p><u>Wildlife</u></p> <p>The significance criteria for wildlife discusses impacts to crucial habitats. Pages 4-23 to 4-25 present impacts to habitats in general; the discussions do not qualify or quantify impacts to crucial habitats. This should be done. Significance discussions on these pages seem to be tied to percent of total habitat affected and not to percent of crucial habitat affected.</p> <p>This same comment applies to all the discussions for Alternatives, Unavoidable Adverse Impacts, and Short-Term, Long-Term Impacts.</p>

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

	<u>PAGE</u>	<u>PARAGRAPH</u>
22.13	4-35	<u>Table 4-23</u> Under the "Other" column, mention that the Davis Bottom Pipeline would be located in a floodplain from Mp 16.2 - 16.4.
22.14	4-50	<u>Transportation Networks - Northwest</u> Construction activities near Little Hole Campground road would result in temporary closures of the road. A temporary shutdown of the Northwest Pipeline could also be necessary. These impacts should also be stated on p. 2-11, under Transportation Networks.
22.15	4-53	<u>(under Wilderness heading)</u> Need to address the fact that the selection of the Northwest Alternative could conflict with a decision to reevaluate the Goslin Mountain roadless area for possible wilderness designation. (See ch. 3, p. 3-41 Wilderness)
22.16	A 2-1	<u>Required General Federal Measures, paragraph 2</u> Change the CO plan to read COM plan-- Construction, Operation and Maintenance plan.
22.17		Add...Maintenance of Right-of-Way to the list of techniques and measures.
22.18	A 2-15	<u>Required Reclamation and Erosion Control Procedures, paragraph 1</u> The Forest Service would issue a Special-Use Permit, not a grant.
22.19		Insert..."Federal right-of-way grant and/or special-use permit that may be issued."



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 22

- 22.1** This final EIS contains an analysis of the Nightingale Station Alternative. This analysis was reviewed in determining the Agency Preferred Alternative for the final EIS. Please refer to Sections 1 and 3.
- 22.2** The information doesn't warrant a table; however, a paragraph has been added to page 1-16, right-hand column, fourth paragraph. Refer to the Errata Summary for revision.
- 22.3** A footnote has been added to Table 2-3 explaining "normal" winter range and yearlong winter range. Refer to Section 2, Comparative Analysis, of this EIS.
- 22.4** A footnote has been added to Table 2-3 defining short term and long term. Refer to Section 2 of this EIS for correction.
- 22.5** The figures have been corrected in Table 2-3 (refer to Section 2 of this EIS.) The figures identified on this table represent anticipated short-term and long-term disturbance from construction of pipelines, access roads, power distribution lines, and pump stations with water intake structures. For purposes of this analysis, it was assumed that long-term impacts would occur from construction of roads, pump stations, and intake structures. Construction of a new access road and other reconstruction activities would be required for the Davis Bottom plant process water pipeline. The Middle Firehole alternative would involve using an existing access road; therefore, no new long-term impacts would occur from implementation of this alternative except for the pump station and related water intake structure. Refer to analyses contained in Chapters 3 and 4 of the draft EIS.
- 22.6** The Comparative Analysis Section has been revised for this EIS. Please refer to Section 2.
- 22.7** No conflicts with the Flaming Gorge Recreation Area Management Plan were identified in Section 4.2.7 (Conflicts with Land Use Plans) for the proposed Davis Bottom plant process water pipeline. Therefore, the suggested paragraph is not necessary.
- 22.8** The costs are determined by salinity increases at a common point—Imperial Dam. Although the damages could occur anywhere along a river, these costs are calculated as damages (poor water quality, more treatment, more irrigation flushing, etc.) to downstream users who would probably have to absorb the costs. To the best of our knowledge, it would be difficult to analyze a non-specific or general dollar amount.
- 22.9** Refer to the Air Quality Section of the draft EIS for a discussion of particulates. Impacts to surface water are not discussed, because no significant impacts are anticipated compared with natural erosion and leaching.
- 22.10** You have correctly stated the intent of the E.O. 11988. The intake structure could be subject to inundation, but it is unlikely that the other components discussed would be inundated. It takes an incredibly large amount of water to raise the level of Flaming Gorge Reservoir. Considering this and the design of the pump house to have 4 to 6 feet free board, it is highly unlikely that it will ever be inundated.
- 22.11** A "significant" emission does not always result in violations of ambient standards. A "significant" emission rate is an arbitrary level of emissions as defined by Section 24 a. (20) of the Wyoming Air Quality Standards and Regulations, Prevention of Significant Deterioration (PSD) regulations. All a "significant" emission rate does, is trigger a warning that there may be enough of the pollutant being emitted that more in-depth study is needed. Such in-depth study includes air quality modeling using the geography and meteorology specific to the proposed area. As shown in Table 4-16, this modeling indicates no potential problems with ambient standards.
- 22.12** The only crucial habitats identified as being potentially affected by this project are noted in the responses to Comments 20.7 through 20.10. Mitigation of impacts to these habitats are also covered in these responses.
- 22.13** Between MP 16.2 and MP 16.4, the Davis Bottom is within the floodplain; however, this would not make the area more susceptible to impacts from proposed action activities. The fact that the soil is "saline" does make it susceptible, and these potential impacts are indicated on the table.
- 22.14** Refer to the Errata Summary for revision.
- 22.15** Page 3-41 of the text has been revised to reflect your comment. Please refer to the Errata Summary for specific wording.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

- 22.16** The BLM normally refers to this plan as a Construction and Operation Plan, with operations being all-inclusive (i.e., including maintenance). We recognize that the Forest Service uses the term Construction, Operation and Maintenance Plan. The actual name of the document is immaterial providing that it meets the requirements of both agencies. Depending on the alternative selected, the Forest Service may not be involved with any construction monitoring.
- 22.17** Maintenance of the right-of-way is included as part of the "Required Reclamation and Erosion Control Procedures" as part of the operation. Please refer to Section A2.2 of the draft EIS for details.
- 22.18** The text has been revised to incorporate these
- 22.19** comments. Please refer to the Errata Summary for revisions.



CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 23



ED HERSCHLER
GOVERNOR

Game and Fish Department

W. DONALD DEXTER
DIRECTOR

CHEYENNE, WYOMING 82002
March 31, 1983

EIS 1044/L1
U.S.D.I. BLM
Chevron Phosphate Project
Draft EIS (ER 83/3)

Mr. Richard E. Traylor
Project Leader
Bureau of Land Management
Division of EIS Services
555 Lange Street, First Floor East
Denver, Colorado 80228

Dear Mr. Traylor:

We have reviewed the U.S. Fish and Wildlife Service comments contained in their memo of March 9, 1983 on this project and concur with their comments and recommendations. In addition, we offer the following comments:

- 23.1 | 1. While we are unsure that flouride emission problems do constitute a threat to wildlife, we agree that if the information available on the subject indicates that a potential problems exists, then this problem should be addressed.
- 23.2 | 2. We agree that BLM and FS should require native plants in revegetation, rather than grasses, as indicated on Page 1-28, Paragraph 3, Lines 20-22.

Please contact us if we may be of further help.

Sincerely,

A handwritten signature in cursive script that reads "Francis Petera".

FRANCIS PETERA
ASSISTANT DIRECTOR, OPERATIONS
WYOMING GAME AND FISH DEPARTMENT

FP:HBM:blh
cc: Game Division
Fish Division

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

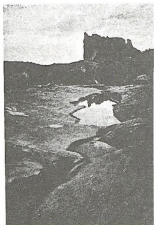
Responses to Comment Letter 23

23.1 Refer to response for Comment 12.1.

23.2 Refer to response for comment 12.6.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Comment Letter 24



ARCHES NATL. PARK by Karen Vendell

SIERRA CLUB Utah Chapter

James Catlin
736 S. McClelland St.
Salt Lake City, Utah
84102

30 March 1983

Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, Colorado 80228

Dear Sir:

Please except these late comments concerning the Chevron Phosphate Project Environmental Impact Statement.

The Utah Chapter of the Sierra Club has actively participated in many federal land management activities including wilderness study, highway construction, wildlife habitat improvement, wild and scenic river proposals, and wildlife refuge improvements within the area proposed for this project. The values found along the Green River include some of the finest found in this state for both wildlife and for humans. The Chapter has consistently supported management of this area giving priority to the protection of the natural values of this area. This project as proposed will seriously degrade this area.

- 24.1 Some of Utah's finest river running and fishing is found from the dam down Red Canyon into Browns Park. The Utah Chapter of the Sierra Club recommends that part of Ashley National Forest and the adjacent BLM roadless area including Red Creek be studied jointly for wilderness designation. The Northwest Alternative and the Proposed Action would seriously impact these area precluding alternate land uses of that area. The proposed Action and the Willow Creek Alternative crosses lands now used for wildlife refuges. Present management of these refuges and proposed expansion will be significantly impacted by this heavy construction and continued use.
- 24.2 in the construction of Flaming Gorge, strong arguments were given against that dam because of the loss of the wilderness character of the now drowned canyon. Special attention was given to the

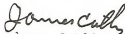
CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

- 24.2 (Cont.) loss of wildlife habitat, critical to the regional game herds. The builders of that dam stated that down stream from the dam wildlife improvements would be made and that area managed to compensate that loss. This project would violate that agreement made to compensate for the damage of the dam. The establishment of the Green River Corridor ACEC further validates this areas importance. Now further damage is planned.
- 24.3
- 24.4 The DEIS grossly understates the national significance of the wildlife, recreation, visual resources, and water resource impacts from the proposed action. The analysis simply says "yes" they will occur. No measure of the manner or degree is given. While these impacts can be tolerated in many areas, the regional significance of this area as a flyway for birds and critical winter habitat for game make impacts understated. From the words given, it would be impossible to determine the difference in impacts from the construction of a boat ramp on a river to nuclear war. Both actions would give the answer "yes." The absence of impact definition gives the DEIS no analysis tools to guide the decision.
- 24.5 The alternatives considered offer only a limited choice all of which would significantly impact the area. The only choice studied to to slurry phosphate across prime wildlife habitat. Other alternate routes are not studied. The Utah Chapter requests that the impacts and economic costs of the following alternatives be considered.
- 24.6
1. Placing the fertilizer plant site near the phosphate mine and trucking the finished product to the nearest rail head in Craig in Colorado.
 2. Placing the fertilizer plant site near a rail head in Colorado and running a slurry line south of Dinosaur National Monument along the highway to the site.
- 24.7
3. Construction of a rail connection to a fertilizer plant site near Vernal and not slurry phosphate.
- 24.8
4. Alternatives for fertilizer not requiring mining at this site. Both the economic and natural environmental differences need to be considered. Alternative agricultural methods are within the Charter of the DEL analysis process.
- 24.9
- In comparing these alternatives, the true costs of protecting the irreplaceable values within Brown Park and along the Green River need to be fully estimated. This can not allow visible ground disturbances during construction or after within this critical wildlife area.
- 24.10 The EIS needs to establish the true costs as estimated by an unbiased independent expert for of the alternatives.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

- 24.11 Construction of 100 miles of rail line may cost less than the water, power, communication, pipe facilities necessary for the proposed plan. This is not known. Even if the costs do appear more than that for the proposed plan, any single natural value found in the Green River area being carved would cancel that difference.
- 24.12 The absense of detailed endangeres species inventories within the project site makes the selection of any alternative premature. These required inventories need to be performed and the information available to the public prior to a final decision being made.

Please keep the Utah Chapter informed of the decision of this project.



James Catlin
Public Lands Coordinator
Utah Chapter of the Sierra Club

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Responses to Comment Letter 24

- 24.1** The draft EIS identifies possible conflicts in the Red Creek and Northwest alternative areas. Please refer to pages 3-24 and 3-41 of the draft EIS for discussions regarding the affected environment. Also refer to the Summary, Recreation Resources, in this EIS for identification of Green River Corridor ACEC. We doubt that the area of Red Creek where the pipeline would traverse could be identified for wilderness designation because of disturbance from already existing facilities. We do not have any information indicating that the areas identified for the proposed action and Willow Creek alternative are currently used as wildlife refuges. If you have information which supports your statement, we strongly urge you to provide it to the Rock Springs District Manager so that it may be considered in the decision-making process. (Refer to the "Dear Reader" letter for address.) Please refer to the following response which also relates to this comment.
- 24.2** Impacts to wildlife caused by pipeline construction, downstream of Flaming Gorge, are not anticipated to be significant because of the short-term impact of the pipeline trench. Revegetation and erosion control stipulations will alleviate impacts on the small amounts of habitat that would be disturbed by the construction of the pipeline trench. Time restraints on construction have been established which would minimize impacts to crucial wildlife areas during critical periods. However, the Utah Division of Wildlife Resources has not indicated that there would be any problem with wildlife disturbance below Flaming Gorge caused by implementation of this project.
- 24.3** While it is true that the slurry pipeline would cross the proposed Green River Corridor ACEC, construction of the pipeline would not be in conflict with the plan. It is also true that the pipeline would cause some impacts; however, in our opinion, they would be minor and short term.
- 24.4** We feel that all probable significant impacts have been addressed. Detailed analyses included, but were not limited to, in-depth research, on-site field work, ortho-photo quad maps, and coordination and consultation with a variety of federal, state, and local entities. In differentiating impacts to the environment, it might be helpful to review the significance criteria for this project, identified for each resource (Section 4.1 of the draft EIS), and compare it with the impact area of influence (Section 3.1 of the draft EIS).
- 24.5** Based on all information furnished by the Utah Division of Wildlife Resources and BLM biologists, these areas would not be considered as prime wildlife habitat. In addition, by timing the construction of linear projects, virtually all impacts can be avoided or mitigated.
- 24.6** Your suggestion to truck the finished products to Craig or build the plant near Craig is only a small part of a larger problem. Using this alternative, raw materials would then have to be pumped, trucked or hauled to the plant site. This would require a water pipeline and an aboveground molten sulfur pipeline. Tailings would also present a disposal problem because of the limited land available. (Refer to Sections 1.10.1 and 1.10.7 of the draft EIS for other considerations involved with the decision to eliminate this proposal.)
- 24.7** In our opinion, the long-term impacts associated with a permanent new rail line would far outweigh the short-term impacts associated with the buried slurry pipeline. Revegetation and reclamation measures have been identified in Appendix 2 of the draft EIS.
- 24.8** Alternative agricultural methods may be desirable, however they were not proposed by the Chevron Chemical Company. The BLM is required to analyze the applicants' proposal and viable alternatives which incorporate the intent of the proposal.
- 24.9** As stated in the draft EIS, the selected alternative would follow the existing MAPCO pipeline corridor. Impacts from construction would be short term and considered insignificant over the long term, in lieu of the existing disturbance. Furthermore, according to the Utah Division of Wildlife Resources, the area along the Green River and Brown's Park are not considered as critical wildlife areas.
- 24.10** We are not sure what costs the commenter is referring to. The environmental impacts of the alternatives have been fully analyzed. This analysis included socioeconomic impacts. It is not within the scope or the purpose of the EIS to provide a cost/benefit analysis.
- 24.11** A new rail line could eliminate some impacts to the Brown's Park area; however, it would not eliminate the need for the associated water,

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

power, and communication lines. Impacts from these components would occur in another area that could be considered more significant. A rail line would create a long-term impact and scar the environment. It has been demonstrated by past projects that a buried pipeline creates only short-term impacts, provided appropriate mitigation measures are carried out.

- 24.12 There has been compliance with all required procedures under the Endangered Species Act of 1973, as amended, as documented in Appendix 5 of the draft EIS. Compliance includes the Section 7 inventory list and biological assessment. The Fish and Wildlife Service Biological Opinion will be included as part of the decision-making process.

5.5 COMMENT LETTERS REQUIRING NO RESPONSE

In addition to the previous letters that included substantive comments (comments that directly addressed the adequacy and accuracy of the draft EIS), the BLM received a few letters that included only opinions about whether the slurry pipeline should be built. The following letters represent this category and are included for consideration as part of the decision-making process.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Letter Requiring No Response



THE STATE OF WYOMING

ED HERSCHLER
GOVERNOR

RECEIVED

JAN 24 1983

EIS OFFICE

WYOMING RECREATION COMMISSION

1920 THOMES

JAN L. WILSON
Director
777-7898

CHEYENNE, WYOMING 82002

January 19, 1983

Richard E. Traylor, Project Leader
Bureau of Land Management
Division of EIS Services
555 Zang Street, First Floor East
Denver, Colorado 80228

Dear Mr. Traylor:

The Draft Environmental Impact Statement on the Chevron Phosphate Project was received in this office on January 17, 1983. Thank you for giving us the opportunity to review the report.

Enclosed is a memorandum from our staff archeologist who reviewed the materials. He indicates that provision must be made for cultural resources. Therefore, the Wyoming State Historic Preservation Officer (SHPO) recommends cultural clearance for the purposes of applicable state and federal laws only if the archeologist's recommendations are followed. In the event that his recommendations are not followed, clearance will be void.

If you have any questions concerning these recommendations please contact the appropriate member of our staff.

Sincerely,

Mark Junge, Deputy
State Historic Preservation Officer

FOR:

Alvin F. Bastron, Acting Director and
State Historic Preservation Officer

MGJ:kjm
Encls.

RICK KILMER
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Lusk 82225

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VICE PRESIDENT
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Rawlins 82301

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Evanston 82630

DAN MADIA
1017 Victoria
Sheridan 82801

MRS. ROBERT PRIBBY
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Cody 82414

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Douglas 82633

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P.O. Box 216
Thayne 82127

LARRY BIRLEFFI
525 E. Apache
Cheyenne 82001

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES
Letter Requiring No Response



WYOMING RECREATION COMMISSION
STATE HISTORIC PRESERVATION OFFICE
REVIEW AND COMPLIANCE

Interdisciplinary Staff Comments

Archeology • History • Historical Architecture • Recreation Planning

TO: Mark Junge, Chief

FROM: Richard Bryant, Compliance Archeologist *RB*

DATE: January 19, 1983 (district #3)

RE: DEIS--Chevron Phosphate Plant

The DEIS indicates that appropriate mitigation measures to protect cultural resource sites in the project area will be undertaken. Our staff routinely works with the BLM and the Industrial Siting Commission to develop mitigation measures for significant sites. I can make no specific comments on how the project will affect cultural sites until the project area has been surveyed and the sites located. As long as standard survey and mitigation procedures are followed, I have no objections to the project.

CONSULTATION AND COORDINATION — COMMENTS AND RESPONSES

Letter Requiring No Response



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION EIGHT
555 ZANG STREET, BOX 25246
DENVER, COLORADO 80225

Rec'd 2-18

February 17, 1983

U.S. Department of Interior
Bureau of Land Management
Division of EIS Services
Richard E. Traylor, Project Leader
555 Zang Street, First Floor East
Denver, Colorado 80228

IN REPLY REFER TO
HEP-08

Dear Mr. Traylor:

Thank you for the opportunity to review your Draft Environmental Impact Statement on the Chevron Phosphate Project. While the document appears to be well constructed and covers the impacts of the phosphate project, we have the following comment.

It appears there will be some significant temporary impacts on highways and roads in the project area. We would recommend that this document be coordinated with both the Wyoming Highway Department and the Utah Department of Transportation.

Sincerely,

Fred Hempel
Director, Office of Environmental
Programs

APPENDIX I

OFFICE OF INDUSTRIAL SITING ADMINISTRATION

Permit Conditions to Mitigate Environmental and Socioeconomic Impacts

1. The Applicant will participate in the development and implementation of a mitigation program to address project-related impacts on the Wyoming Game and Fish Department. If a temporary warden position is required during construction and funding is unavailable from other sources, the Applicant will fund a temporary position for that time.
2. The Applicant will develop a weapons policy and an environmental awareness training program in cooperation with the Wyoming Game and Fish Department and present the program to its employees.
3. If the final selected site for the water intake structure is Davis Bottom, then the microwave tower will be located in such a manner as to minimize visibility from the Green River and the west bank.
4. Since water for the project will not be available from the Big Sandy Project as originally contemplated, the Applicant shall conduct further evaluation of possible intake structure locations and pipeline routes, including locations which would be outside the National Recreation Area. These studies shall be completed by January 1, 1984, and shall be reviewed by ISA in coordination with BLM, the Applicant, and other federal agencies to develop a final intake structure location. If a consensus cannot be reached, the matter shall be referred to the ISC (*Industrial Siting Council*) for resolution.
5. Before construction commences, the preliminary design of the water intake structure and pump house shall be submitted to the ISA and Wyoming Game and Fish Department for their approval. The design of related facilities to the intake structure, such as the access road and power line, must also be submitted to the ISA for review and approval.
6. If the final site selected for the water intake structure is at Davis Bottom, then the water pipeline shall be parallel and immediately adjacent to the existing MAPCO pipeline right-of-way as it leaves the Davis Bottom area, unless the Forest Service designates otherwise.
7. The Applicant's proposed routing of the slurry pipeline out of the Red Creek Badlands has been modified by BLM, and Chevron shall adopt the BLM modifications.
8. Baseline studies of vegetative productivity at the plant complex shall be conducted using DEQ-LQD Guideline Number 2 and must be submitted to the ISA prior to the commencement of construction.
9. Non-endemic plant species should not be used in reclamation unless approved by ISA and the Wyoming Game and Fish Department.
10. The seed mixture will provide vegetative diversity and, for the plant site, should include forbs, grasses, and shrubs.
11. The Applicant will coordinate with the Wyoming Game and Fish Department regarding scheduling of construction activities in the Red Creek Badlands and in other important big game ranges, and will follow the reasonable recommendations of the Wyoming Game and Fish Department in consultation with BLM regarding scheduling of activities in these areas.
12. In order to avoid adverse impacts on sage grouse, and their breeding habitats, the Applicant will:
 - a. Route around sage grouse leks;
 - b. Avoid construction activities within sage grouse breeding complexes during the breeding period;
 - c. Restrict vegetation disturbance within and adjacent to these breeding complexes to the minimum necessary to lay the pipeline (i.e., no lay down areas or permanent access roads within the breeding complexes);
 - d. Not employ vegetative control within or adjacent to rights-of-way traversing breeding complexes; and

ISA PERMIT CONDITIONS

- e. Revegetate only with native plants in or adjacent to these complexes.
13. Once center lines for linear facilities are determined, the Applicant will resurvey affected areas for raptors. The Applicant will negotiate with the Fish and Wildlife Service and Wyoming Game and Fish Department to develop appropriate mitigation of adverse impacts on any nesting raptors that could be affected by project activities. The mitigation measures developed in cooperation with the Fish and Wildlife Service and Wyoming Game and Fish Department will be provided to the ISA before commencement of construction.
14. The effects of the withdrawal of 500 gpm of ground water for construction and for potable water during operations will be evaluated by the Applicant. Other water rights, if any, that are located within the expected cone of depression of the Applicant's wells will be listed and submitted with effects analysis.
15. The Applicant will place monitoring wells down-gradient of the cutoff trench of the gypsum impoundment. The well positions and parameters to be monitored will be approved by the Wyoming Water Quality Division of DEQ (DEQ-WQD). The Applicant shall also provide the well positions to the ISA for its review and approval concerning whether the monitoring system is adequate to determine if operations will result in adverse impacts on nearby springs and surface water flows.
16. Prior to constructing the compacted earth cutoff trench, the Applicant shall do the following:
 - a. Additional borings will be done to better define the appropriate depth of the cutoff trench;
 - b. Additional studies (using gypsum slurry from the Salt Lake plant) will be conducted to more accurately determine the soils capability to absorb specific leachate;
 - c. Provide for DEQ-WQD and ISA inspection of the trench during construction;
 - d. The Applicant will plan construction to allow for filling any fractures encountered in the cutoff trench. This would be done with grout, deeper excavation, or other methods as determined appropriate;
 - e. The Applicant will develop, in cooperation with the DEQ-WQD and ISA, a monitoring program designed to detect any pollutant migration beyond the cutoff trench;
 - f. Since the existing gypsum impoundment plans are preliminary, completed and detailed plans will be due at the Industrial Siting Office for review and approval at the same time such plans are submitted to the State Engineer's Office and the DEQ-WQD; and
 - g. If adverse quantities of pollutants are detected down-gradient of the cutoff trench, the Applicant will take appropriate remedial action to control the migration. The appropriate action would be developed in cooperation with the DEQ-WQD and ISA and may consist of recovery wells or of constructing an additional seepage control barrier.
17. The Applicant will provide topsoil stripping maps for the plant site which show the limits of disturbance, topsoil mapping units, and locations of topsoil stockpiles. The maps will be accompanied by computations of topsoil quantities and times when topsoil will be stored in each pile. Guideline No. 1 of DEQ-LQD will be followed in determining topsoil suitability and in choosing mapping techniques.
18. The Applicant will collect post reclamation gamma-level data on the gypsum impoundment and will ensure that gamma levels are reduced, if necessary, so as not to exceed baseline gamma levels. DEQ-LQD Guideline No. 3 will be followed when conducting the baseline and post reclamation gamma surveys. The Applicant will limit radon emanation to twice the background rate for the gypsum area.
19. During construction and operation, the Applicant will adopt the following policies:
 - a. All disturbances will be stabilized as quickly as possible to minimize erosion by wind and water;
 - b. All gulleys or rills formed or on affected areas will be repaired and stabilized;
 - c. All disturbances will be kept to a minimum;

ISA PERMIT CONDITIONS

- d. Topsoil stockpiles will be protected from wind and water erosion by seeding and proper location; and
 - e. Topsoil will be protected from acid and toxic materials and from degradation.
20. The Applicant will include the following as part of the reclamation plan:
- a. Final contour maps will be provided for the project area and railroad plus $\frac{1}{2}$ mile on all sides, showing the post operation contours of the gypsum impoundment, cooling pond, and plant site after removal of structures and pavement. As part of the gypsum reclamation plan, optimum slope and topsoil cover for reclamation of the gypsum impoundment will be studied. The details of this study will be included in the reclamation test plan to be submitted for approval to ISA prior to initiating the study. All other contours will be 5:1 or less, except for linear facilities which will not exceed 3:1;
 - b. Soils harmful to vegetation, wildlife, or livestock will be buried to a depth that would render that substance harmless and yet not contaminate ground water;
 - c. The Applicant will replace all topsoil, protect the topsoil by mulching or other measures, and will seed the topsoil using species, rates, and dates to be agreed upon with the ISA;
 - d. The Applicant will fence all reseeded areas until a sustaining stand of vegetation has been established. However, the Applicant shall not be required to sub-fence the fence around the plant nor fence any linear areas;
 - e. The Applicant will engage the reclamation plan upon termination of the project; termination of the project is hereby defined as cessation of construction and operation of the plant for a period of 2 years unless the Applicant submits evidence that economic conditions will permit resumption of operations after the 2-year period has expired; and
 - f. The Applicant will remove all aboveground structures, and all disturbances will be reclaimed upon termination of the project.
21. The Applicant will maintain close contact with the State Historic Preservation Office (*SHPO*)
- so that the survey, site evaluation, and mitigation phases of the cultural resource work can be completed in a timely and efficient manner. Cultural clearance from the SHPO will be obtained prior to commencement of construction. All earth moving activities will be monitored for the presence of previously unknown cultural resources.
22. Prior to the commencement of construction, the Applicant will develop a health and safety plan as provided in Section 2.4 of the Staff Review and in coordination and cooperation with OHS (*Office of Health and Safety*) and ISA.
23. The Applicant will fully comply with rules and regulations as promulgated by OHS and cooperate with that office and with ISA in mitigating any potential hazards as identified in Section 2.4 of the Staff Review and not covered under the present rules and regulations of OHS.
24. The Applicant will retain an independent contractor to determine if downwind impacts of cooling tower emissions on soils, vegetative cover, and productivity can be isolated and analyzed. If possible to isolate and analyze downwind impacts of cooling tower emissions, the monitoring program will be developed and implemented by an independent research group and approved by ISA. The program may include baseline data collected before production commences and then during production from areas outside of the area of influence. This baseline data can then be compared to that collected during operation, over an appropriate timeframe, within the area of site influence. All emissions, including suspected trace emissions, of the cooling tower should be identified, quantitated, and the data provided to ISA.
25. Before construction of the water intake structure begins, the Applicant will provide to the ISA and the Wyoming Game and Fish Department, an analysis of the effects of suspended solids on water quality and aquatic biota, including estimates of downstream distances affected.
26. At all stream and drainage crossings by any of the linear facilities, the Applicant will employ adequate sediment control measures to minimize increases in total suspended solids as a result of surface erosion and stream bottom disturbances.

ISA PERMIT CONDITIONS

27. The Applicant will provide adequate spill control measures and emergency response for all chemicals and materials transported to and from the plant by either rail or truck. Bills of Lading accompanying these shipments will list Chevron Chemical's name and a toll-free emergency response phone number. The Applicant employs staff knowledgeable in cleanup and containment procedures, on call, 24 hours a day. They can provide cleanup assistance, as well as dispatch a trained emergency response team to the spill site. The Applicant also contracts with a firm that can provide nationwide emergency response assistance, if needed. Through these measures, the Applicant guarantees to provide adequate spill control and to mitigate any adverse impacts that may occur.

28. The Applicant will not use herbicides to control vegetation in or near streams and drainages.

29. Before any hydrostatic test water is released from the slurry pipeline by the Applicant, ISA must be notified. This notification shall include not only the timing of the release, but also the quality, quantity, location, and expected impact of that release.

30. The Applicant will coordinate plans for sediment control measures and timing of construction of all slurry pipeline crossings of Red Creek and its tributaries with the Wyoming Game and Fish Department, to reduce impacts to the maximum extent practical on the population of Colorado River cutthroat trout.

31. The Applicant submits the protocol for cleaning up slurry spills as shown below. The cleanup procedure is general since the method of spill cleanup is dependent upon the size of the spill. The cleanup methods are flexible to respond to a specific situation and will be determined in collaboration with the landowners and appropriate agencies with jurisdiction, including the ISA. The ISA will be notified of any spills which occur.

Protocol

General spill response action guidelines to be followed in the event of a slurry spill are as follows:

Determine Need for Cleanup

Since the phosphate rock concentrate is essentially inert, there may be cases where spill cleanup would result in more environmental damage than leaving

the material in place. Consequently, following a spill, the Applicant will determine the need for cleanup, by collaborating with landowners and agencies having jurisdiction.

Cleanup

Cleanup procedures would depend on the size and distribution of the spill. In the case of a large spill concentrated in a small area, heavy equipment such as scrapers and front-end loaders would be used initially to pick up the bulk of the material. The cleanup would be finished manually. In the case of a small spill or a spill where material was spread in a thin layer over a large area, it may be necessary to conduct the entire cleanup operation manually.

Determine Need for Restoration

Following cleanup, the need and specification for restoration would be determined in collaboration with the landowners and agencies having jurisdiction.

32. Before commencement of construction of the linear facilities, final center lines for the linear facilities will be staked by the Applicant and approved by ISA. Information provided will include locations of laydown areas, turnarounds, and access roads. The center line staking shall be completed by the Applicant to provide adequate lead time for thorough review and approval by ISA. Construction of linear facilities and other project components will be subject to unannounced inspection by all entities having jurisdiction.
33. The Applicant shall have responsibility for control and properly disposing of trash resulting from construction activities.
34. Prior to the mining of clay for project use, the Applicant must obtain approval from ISA of its mining activities which are not subject to the review and approval of other state agencies.
35. The Company shall submit annual environmental reports as of December 31st, on or before February 15th, of each year. The annual reports shall contain such detail as the Staff may reasonably require, supplemented with maps, cross sections, aerial photographs, or other material. Annual reports should include:

- a. Environmental planning efforts not described in the application;

ISA PERMIT CONDITIONS

- b. Efforts to identify and minimize environmental problems;
 - c. Efforts to assure compliance with permit conditions required by the Council;
 - d. Results and analyses of all monitoring programs described herein;
 - e. results of the specific mitigation requirements contained herein;
 - f. Listing of all permits and approvals obtained during the preceding year, all applications pending, and all permits and approvals for which applications will be made in the following year;
 - g. The extent to which construction has been completed or operations production;
 - h. Progress of all reclamation work;
 - i. Any revised time schedules or timetables of construction, operation, and reclamation, and an estimate of the 0.3 construction and reclamation that will occur in the next 1-year period; and
 - j. The extent to which expectations and predictions made in the Application or previous reports have been fulfilled, and any deviation therefrom.
36. The Applicant shall make every effort to overlap construction work on the slurry pipeline within areas previously disturbed by MAPCO in its existing right-of-way. ISA shall be notified of the Applicant's plan to overlap existing disturbed areas. Such notification shall allow adequate time for ISA review and approval.
37. Any conditions requiring evidence of approval or requiring the preparation of plans or programs for ISA approval prior to the onset of construction must be provided with adequate lead time for ISA review.
38. The Applicant shall, prior to commencement of construction, obtain approval from the State Engineer of the plans and specifications of the gypsum impoundment dam as provided in 41-3-308 W.S.A. 1977, as amended.
39. Applicant's contractors and subcontractors shall establish payroll and general disbursement accounts at banks in Rock Springs to the extent practical during the construction and operation phases of the project. Chevron shall establish general disbursement accounts to the extent practical. During the operational phases of the project, Chevron will maintain a local account.
40. The Applicant, its contractors, and subcontractors, shall have a sales and use tax license for Sweetwater County. Prior to the start of construction, the Applicant will participate in the information seminar conducted by the State Department of Revenue.
41. Since construction of the facility will generate impact assistance payments, the Applicant shall report to the State Treasurer, the Department of Revenue and Taxation, and the ISA when construction commences and when construction is 90 percent complete.
42. The Applicant shall not exceed the number of estimated construction/operation employees by more than 10 percent without amendment of the permit pursuant to Section 12 of the ISA Rules and Regulations.
43. The Applicant shall work closely with the County Commissioners of Sweetwater County to mitigate unforeseen impacts if they occur. The Applicant will monitor medical manpower in relationship to needs during the construction period.
44. The Applicant will guarantee 1.2 million dollars of new revenue to the City of Rock Springs during the construction period. Most or all of this new revenue will be in the form of special impact assistance payments from the State of Wyoming. In the event the special impact assistance revenues are less than the projected \$1.2 million, the Applicant will make up the difference. The Applicant and the City of Rock Springs will agree prior to commencement of construction on the annual distribution of the guarantee during the construction period.
45. Chevron shall ensure adequate housing for project construction workers, supervisory personnel, and permanent employees. This shall be done in a manner that avoids tightening the local housing market to the extent that housing is unavailable to other residents in the community. The housing plan will include an expanded **construction camp**, mobile home pads, and R.V. (**recreational vehicle**) spaces. Prior to the utilization of

ISA PERMIT CONDITIONS

existing housing, it must be demonstrated to the ISA that existing and anticipated housing supplies are adequate to provide Chevron required housing and meet secondary demands as well.

46. The Applicant will work closely with officials of School Districts No. 1 and No. 2, and will monitor the number of Chevron-related students enrolled in each District during the construction period. If unexpected, adverse impacts occur as a result of the Chevron project, the Applicant will work out a mitigation program to the satisfaction of the appropriate School District, or the question may be referred to the ISC.
47. Chevron will construct turn lanes, acceleration/deceleration lanes, and through traffic lanes at the Highway 430/Plant Site access intersection to alleviate potential transportation congestion and safety hazards. The Applicant will continue to work closely with the Wyoming Highway Department to mitigate any problems which might develop at either the plant intersection or the Highway 430 belt route. The Applicant will work closely with the County Engineer in the analysis, planning, and construction of County Road 4-27. Disagreements between the Applicant and the Highway Department or the County Engineer may be referred to the ISC.
48. The Applicant shall maintain fire-fighting equipment and emergency and ambulance service at the plant site during construction of the facility. During operation, the Applicant shall maintain fire-fighting equipment and emergency service at the plant.
49. The Applicant shall develop a two-level monitoring system to determine the direct project-related impacts on affected communities in the area of site influence. Project-related data will be gathered on new employees. In addition, community-specific data on select public services, school enrollments, housing stock, and housing availability will be compiled on a quarterly basis. If monitoring indicates significant deviations from the projected net project-related impact, monitoring of other socioeconomic indices will be triggered to the extent they may be applicable to the problem. The Phase II variables will include: revenue and expenditures, medical services and personnel recruitment, human services, capital facilities/personnel, and banking and

availability of credit. Monitoring will be carried out in close cooperation with the Sweetwater County Association of Government's monitoring program and with the City of Rock Springs' planning office. Reports will be published on a quarterly basis until commercial production levels are reached at the phosphate fertilizer plant.

PHASE 1

(Variables will be monitored for Sweetwater County, Rock Springs, Green River, and School Districts No. 1 and No. 2, where appropriate.)

A. Economic and Demographic Conditions

1. Chevron Chemical Phosphate Project employment and associated characteristics:

- Occupation
- Age
- Sex
- Marital status
- Residence of family
- Number of children and ages
- Workers per household
- Local residence and mode of travel (commuting patterns)
- Type of residence
- Anticipated length of residence
- Length of residence in the area
- Previous residence
- Employee turnover
- Future manpower requirements

2. Other basic employment

3. Secondary employment

B. Housing

1. Occupancy rates at Chevron Chemical housing, by type
2. Number of units available, by location and type
3. Requests for Chevron Chemical housing
4. Vacancies in the existing housing stock and local housing conditions

C. Public Services

1. Education

- a. Total enrollments
- b. Chevron Chemical Phosphate Project-related enrollments
- c. Student-teacher ratios
- d. Facilities capacity
- e. Budgetary status

ISA PERMIT CONDITIONS

2. Public Safety

- a. Number of arrests, by category
- b. Number of fire calls, by type and fire station
- c. Number of ambulance calls

3. Revenue and expenditures

- a. Sales and use tax (total and Chevron-related)
- b. Impact assistance tax
- c. Budgetary status

4. Health and Social Services

- a. Department of Public Assistance and Social Services
 1. Service caseloads
 2. Intakes on income maintenance
 3. Day care facilities and rates of utilization
- b. Mental Health Center
 1. Total number of incidences of treatment
 2. Caseloads
 3. Number of Chevron-related cases
 4. Number of crisis-oriented cases
 5. Number of substance abuse cases
- c. Health Care
 1. Hospital
 - (a) occupancy rate
 - (b) need for allied health professionals
 2. Physician Recruitment program

5. Game and Fish Management

- a. Number of violations, by type

PHASE II

(Variables will be monitored if Phase I monitoring indicates significant problems in any area; one or more of the following variables may be monitored to the extent that they may be applicable to the problem.)

A. Human Services

Chevron would check with the following services on a quarterly basis for any adverse impact:

1. Job Service
2. Probation and Parole

3. Sweetwater County Task Force on Sexual Assault
4. Southwest Wyoming Rehabilitation Center
5. Sweetwater County Child Development Center
6. YWCA (*Young Women's Christian Association*)
7. Vocational Rehabilitation
8. Southwest Wyoming Alcoholism Rehabilitation Association
9. Family Planning/Western Wyoming Women's Resource Center
10. Volunteer Information and Referral Service (The analysis would include the following: Service Volume by program, FTE (*full-time employee*) personnel available per program, budget, and adequacy of space and facilities.)

- B. Revenue and Expenditures (In Phase II, a more in-depth revenue and expenditures analysis will be taken for the political entity adversely affected as indicated by Phase I monitoring. In addition to information collected in Phase I, the following information will be collected.)

1. Per capita operating and capital expenses
2. Bond capacity
3. Total grants and state or federal funds received

C. Banking

1. Availability of home mortgage money and interest rates
50. The Applicant will take reasonable action to obtain qualified workers from the local area and dissuade large numbers of job seekers from coming to the local area.
51. If adverse socioeconomic impacts occur which have not been predicted and for which no mitigation plan is in place and which are the direct result of the proposed Chevron project, the matter may be referred to the ISC for resolution, if it has not been resolved by community and company officials. The ISC may require mitigative assistance from the Chevron project only if no alternative funding is available.
52. Because the Applicant expects construction of the project to be delayed for a period of time from the schedule set forth in its application, the Applicant shall take the following actions to ensure that socioeconomic impacts are adequately mitigated:

ISA PERMIT CONDITIONS

- a. As soon as possible, but no later than 120 days prior to commencement of construction, the Applicant shall notify the ISA of its proposed construction schedule;
- b. At the time of notification, the Applicant shall consult with ISA to determine whether any socioeconomic conditions must be reevaluated and mitigation plans adjusted because of significant changes in socioeconomic conditions;
- c. No later than 60 days prior to commencement of construction, the Applicant shall have completed, and provide to ISA for review, any required reevaluation of socioeconomic conditions and proposed adjustments to the mitigation plans;
- d. As soon as practical, but prior to commencement of construction, the Applicant shall, pursuant to Section 12.b of the ISA Rules and Regulations, request an amendment of its permit by presenting to the ISC its proposed construction schedule and any reevaluation of socioeconomic conditions and adjustments of mitigation plans; and
- e. A public hearing will be held if determined appropriate by ISC in accordance with Section 12.b provided, however, the ISC shall undertake all reasonable steps to schedule the hearing, if required, so as not to delay construction of the project.

APPENDIX 2
FISH AND WILDLIFE SERVICE
Biological Opinion



U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

United States Department of the Interior
FISH AND WILDLIFE SERVICE

1782
Chevron

JUN 17 AM 10:00

MAILING ADDRESS:
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION:
134 Union Blvd.
Lakewood, Colorado 80228

IN REPLY REFER TO
RECEIVED
FA/SE/BLYENNE, WYOMING
Cheyenne Phosphate Project

JUN 16 1983

6/20/83

ROUTING	DATE/NO.	FILE
SO		FILE
AG		FILE
SA		FILE
SP		FILE
OPA		FILE
		LEAD RESP

MEMORANDUM

To: State Director, Wyoming
Bureau of Land Management, Cheyenne, WY

From: Acting Regional Director, Region 6
U.S. Fish and Wildlife Service, Denver, CO

Subject: Section 7 Consultation, Chevron Phosphate Fertilizer Complex

By memorandum dated April 8, 1983, our Salt Lake City Office requested and received a 60-day extension of time to complete consultation on the subject project pursuant to Section 7 of the Endangered Species Act (ESA).

Because of the need of further consultation with the State of Wyoming as well as Chevron and your agency on this project, we are unable to complete consultation by the extension of time date of June 17, 1983. We would therefore appreciate an additional extension of time until July 18, 1983.

The new amendments to ESA (Section 7b) also require consent of the applicant for an extension of time if the consultation period proposed to be agreed to will end 150 or more days after the date on which consultation was initiated. The consultation period would now be 180 days, so by copy of this memorandum, we are hereby requesting consent from Chevron for an extension of time to July 18, 1983, to complete consultation.

Robert H. Shields
ROBERT H. SHIELDS

cc: Ray Boyd, Special Projects
Branch, Bureau of Land
Management, 555 Zang St.,
1st Floor E., Denver, CO 80228

Dean Forsgren, Chevron Chemical
Company, Environmental Permitting
Coordinator, Phosphate Project,
P.O. Box 1928, Rock Springs,
WY 82901



United States Department of the Interior

FISH AND WILDLIFE SERVICE

ENDANGERED SPECIES OFFICE

1406 Federal Building

125 South State Street

Salt Lake City, Utah 84138

8 April 1983

IN REPLY REFER TO:

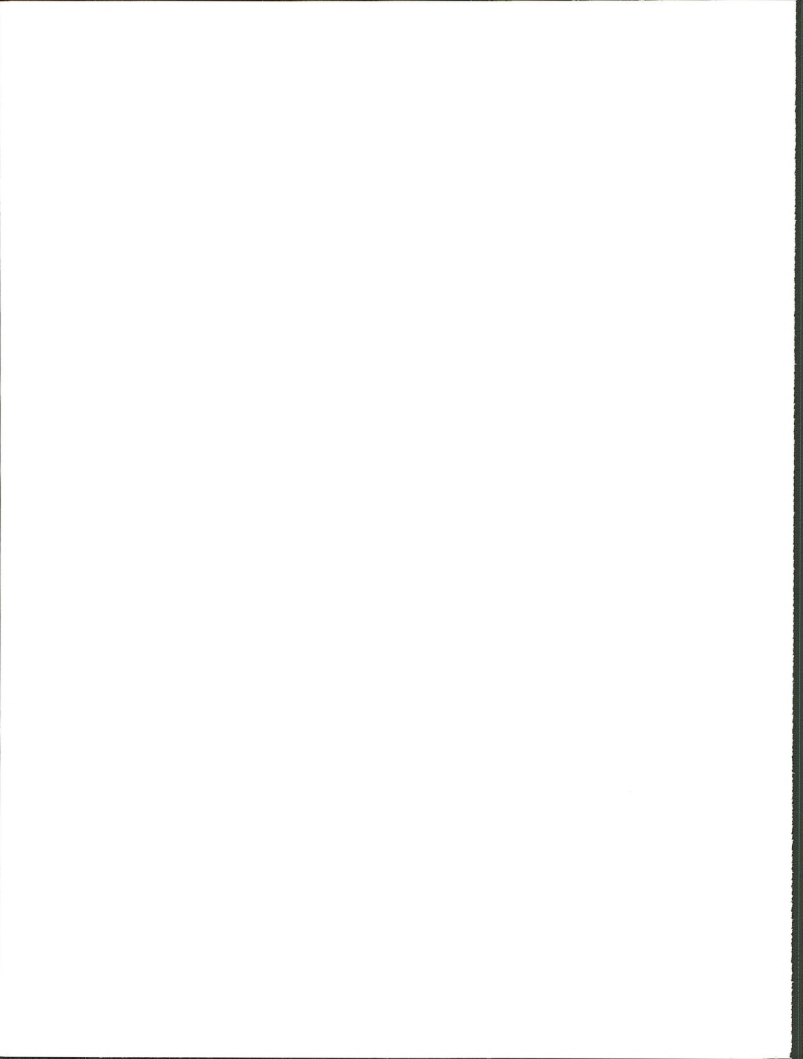
Memorandum

TO: State Director, Bureau of Land Management
Cheyenne, Wyoming

FROM: Field Supervisor, Endangered Species Office,
Salt Lake City, Utah

SUBJECT: Request for extension of time to complete Section 7 Con-
sultation for the Chevron Phosphate Project.

The Fish and Wildlife Service requests that the Bureau of Land Management agree to extend the formal consultation period for the Chevron Phosphate Project. An additional 60 days, until 17 June 1983, will be needed to conclude consultation. This extension of time is necessary to resolve the impacts of the project to the endangered Colorado River squawfish and humpback chub. We would appreciate your prompt reply.



APPENDIX 3
LAND STATUS AND OWNERSHIP
Nightingale Station Plant Process
Water Pipeline Alternative



TABLE A3-1

**LAND STATUS AND OWNERSHIP BY MILEPOST
NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE**

MP to MP	Private	BLM	State of Wyoming
0 - 1.4	1.4		
1.4- 2.4		1.0	
2.4- 3.5	1.1		
3.5- 3.9		0.4	
3.9- 6.7	2.8		
6.7- 7.8			1.1
7.8- 9.9	2.1		
9.9-10.9		1.0	
10.9-11.9	1.0		
11.9-13		1.1	
13 -14	1.0		
14 -15.1		1.1	
15.1-17.4	2.3		
TOTAL	11.7	4.6	1.1

Note: Figures identified in this table refer to number of miles.

TABLE A3-2

**MILES AND ACRES BY LAND STATUS AND OWNERSHIP
NIGHTINGALE STATION PLANT PROCESS WATER PIPELINE ALTERNATIVE**

Component	Wyoming		Private		BLM		Total	
	Miles	Acres	Miles	Acres	Miles	Acres	Miles	Acres
Process Water								
Pipeline Alternative								
Pipeline	1.1	7	11.7	70	4.6	28	17.4	105.4
Access Road	0	0	0	0	0	0	0	0
Power Trans-								
mission Line	0	0	0	0	0	0	0	0
Pump Station	0	0	NA	1	0	0	NA	1.0
TOTAL:	1.1	7	11.7	71	4.6	28	17.4	106.4

Bureau of Land Management
Library
Bldg. 50, Denver Federal Center
Denver, CO 80225

R'S CARD

B 1983D

ental impact
the Chevron

OFFICE		DATE RETURNED

(Continued on reverse)

BLM-YA-ES-83-005-3027